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ABSTRACT

This packet contains an instructor's manual and participant workbook for use within a series of facilitated training sessions covering requirements for hazard communications in the workplace (especially in Oklahoma), or as a reference for self-paced individual study. The instructor's guide provides answers to the worksheets and to the review sheet questions in the participant workbook, and step-by-step instructions for using each unit. It also recommends instructional strategies for each of the objectives and identifies optional resources to supplement the unit. The participant workbook contains five units of instruction that cover the following topics: requirements of the Oklahoma Hazard Communication Standard, inventory control and recordkeeping, fire safety, non-routine tasks, and employee training guidelines. Each unit consists of the following components: objective sheet, information sheet, worksheet, and review sheet. Contents of the appendices are as follows: Oklahoma Hazard Communication Standard; fire hazard definitions; addresses for resources; sign variance procedures; an employee personal safety checklist; a hazard communication checklist; and a log and summary of occupational injuries and illnesses. (KC)

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HAZARD[illegible]ICATION TRAINING FOR EMPLOYERS

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A WORKBOOK FOR COMPLYING WITH THE OKLAHOMA HAZARD COMMUNICATION STANDARD

CIMC

Instructor's Manual

Oklahoma Department of
Vocational and Technical Education
1500 West Seventh Avenue
Stillwater, OK 74074-4364

95-010849

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HAZARD COMMUNICATION TRAINING FOR EMPLOYERS

Instructor's Manual

Developed by the
Curriculum and Instructional Materials Center,
Oklahoma Department of
Vocational and Technical Education

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TABLE OF CONTENTS

Instructor's Manual

Upfront
- Foreword v
- Acknowledgments vii
- Use of this Publication ix
- Corrections and Suggestions xi

One set per unit of the following components:
- Instructor's Guide
- Answers

Instructional Supplement (one set for all units)

Participant Workbook

UNIT 1
- Requirements of the Standard 1-1

UNIT 2
- Inventory Control and Recordkeeping 2-1

UNIT 3
- Fire Safety 3-1

UNIT 4
- Non-Routine Tasks 4-1

UNIT 5
- Employee Training Guidelines 5-1

APPENDICES
- I. Oklahoma Hazard Communication Standard I-1
- II. Fire Hazard Definitions II-1
- III. Addresses III-1
- IV. Sign Variance Procedures IV-1
- V. Employee Personal Safety Checklist V-1
- VI. Hazard Communication Checklist VI-1
- VII. Log and Summary of Occupational Injuries and Illnesses (OK No. 200) VII-1

FOREWORD

The role of effective hazard communications in the workplace is significant. The use of a wide variety of hazardous materials is necessary in both public and private industry. Such materials are present in goods, services and processes. To some extent, our daily activities in the workplace involve hazardous substances in many forms and quantities. These substances pose risks in the form of health hazards and physical hazards to persons who must work with or around them. In some cases, the contributions of materials are overshadowed by the inherent dangers or risks involved. The costs are great — job-related injuries and illnesses associated with hazardous substances are expensive, and the human, material and financial costs to the workplace and to the state are enormous.

Hazard Communications Training for Employers can be a valuable resource for both public and private employers. While it cannot guarantee your compliance with the requirements of the Oklahoma Hazard Communication Standard, these instructional materials can help you establish a written program for hazard communications where you work. They can also help promote an attitude of responsibility in dealing with hazardous substances in the workplace. However, the easiest way to deal with hazardous substances is to replace them with materials that are not hazardous.

This training program is a cooperative effort of the Oklahoma Department of Labor and the Oklahoma Department of Vocational and Technical Education. We hope that it will benefit you, your employees, and your profession.

Dave Renfro
Oklahoma Commissioner of Labor

Roy Peters, Jr.
State Director
Oklahoma Department of
Vocational and Technical Education

ACKNOWLEDGMENTS

The Curriculum and Instructional Materials Center (CIMC) extends its appreciation to the individuals who played key roles in the development of this publication. Such a comprehensive effort requires contributions from many people. We sincerely appreciate the support necessary to complete this project.

These instructional materials were revised by Beth Ann Fulgenzi.

The state Department of Labor played a significant role by providing necessary information and by conducting a critical review of the final text.

In the Industry Training and Recruitment Division of the Oklahoma Department of Vocational and Technical Education, Jimmy F. Roblyer, Safety Training/Program Development Coordinator, provided critical input and guidance.

The close cooperation and dedication of others at the Oklahoma Department of Vocational and Technical Education were instrumental in producing this publication. Kathryn Northcutt designed the cover and prepared unit artwork, under the supervision of Bob Davis, Art Manager. Rose Primeaux, Supervisor of the Word Processing Center, helped prepare the final copy. This publication could not have been printed without the expertise and commitment of the Printing Plant staff, under the supervision of Danny Darrow. Delivering the final product was accomplished through the excellence of the staff at the CIMC Warehouse, under the direction of Darrell Stiles, Warehouse Manager. This project also received generous support from John Friedemann, CIMC Team Leader, and Dr. Lynna Ausburn, CIMC Development Coordinator.

Thank you to everyone involved.

Craig A. Maile
Instructional Development Specialist

USE OF THIS PUBLICATION

This workbook is designed either (1) for use within a series of facilitated training sessions covering the subject of hazard communications, or (2) as a reference for self-paced individual study.

Instructors are encouraged to supplement unit components with other resources to make units as responsive to local conditions and student needs as possible.

This workbook contains five units of instruction, with unit components organized within two packages: an Instructor's Manual and a Participant Workbook. (The Instructor's Manual includes both instructor materials and the Participant Workbook.) The unit components within each package are described below:

Participant Workbook

Objective Sheet — This component summarizes each unit. The Objective Sheet includes an introduction, a unit objective stating the overall goal of the unit, and the specific objectives covered in the unit. The specific objectives can also assist instructors in determining teaching strategies and instructional methods. Instructors should modify, delete, or add objectives to meet the needs of participants.

Information Sheet — This component provides the "must know" content essential for meeting the cognitive objectives in each unit. Some objectives on the Information Sheet begin with a "Words You Should Know" section. This boxed item identifies terms relating to the objective, and gives a definition for each. The Information Sheet may also contain clarifying NOTES and EXAMPLES, as needed.

Worksheet — This component should be used as an aid to understanding or discussing unit concepts. It is a written activity which requires the application of unit concepts.

Review Sheet — This component provides criterion-referenced evaluation of the specific objectives from the Information Sheet. The Review Sheet allows participants to assess their understanding of the objectives covered in each unit.

Appendices — This component includes specific information for participants to reference as desired, such as checklists, resources, and other kinds of information.

Instructor's Manual (in addition to Participant Workbook)

Instructor's Guide — This component leads the instructor/facilitator step by step, objective by objective through the unit. It recommends instructional strategies for each of the specific objectives and identifies optional resources to supplement the unit. Instructors/facilitators should study the Instructor's Guide before introducing the unit and allow time to obtain supplemental materials, prepare audiovisual materials, and contact outside resource persons. Specific tasks of the instructor/facilitator will vary with each unit.

Answers — This component provides the answers to the Worksheets and to the Review Sheet questions.

CORRECTIONS AND SUGGESTIONS

The Curriculum and Instructional Materials Center (CIMC) wants to provide vocational instructors and students with accurate and effective materials. Although the CIMC strives to maintain the highest standards of development and production, oversights sometimes do occur. If you find any errors in this or other CIMC publications, or have suggestions for improving their usefulness in vocational programs, please notify the CIMC staff. To do this, please identify the page(s) affected and write any comments to clarify the error or suggestion. Use the spaces below. Then, simply fold (bottom of page *upward*, top *downward*), secure, and mail.

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INSTRUCTOR'S GUIDE

REQUIREMENTS OF THE STANDARD 1

PREPARATION

- Obtain materials to supplement unit. See Optional Resources.
- Review the specific objectives to be covered in this unit.
- Make transparency masters, if necessary.
- Arrange for the use of all audiovisual equipment that will be needed.

DELIVERY

GENERAL

- Cover this unit quickly — later units will treat these topics in greater detail. Promote this unit as an overview of the *Oklahoma Hazard Communication Standard*, to help participants interpret this legislation. The complete text of the *Standard* is in Appendix I.
- Refer participants to Rule II in Appendix I for the definitions relevant to this training program. Allow participants to briefly read through the list of terms before proceeding with Unit 1.
- Explain to participants that the *Standard* (Rule X) provides a list of information sources that are important for both the employer as well as the employee representatives. These sources can help evaluate the hazards of substances present in the workplace.

  Participants can use these sources as an integral part of a library or data base for hazard communication.

  A second type of resource is the Hazard Communication Committee (Rule XI), established to study emergency responses and hazard communications problems.

OBJECTIVE 1

Answer questions about the need for hazard communication training.

- Emphasize the value of a complete program in hazard communication as a potential means for reducing employer personal and criminal liability for hazardous materials at the workplace.
- Explain the information presented in Figures 1 and 2.
- Share with students the following information: the *Federal Standard* (29 CFR 1910.1200) limits the definition of "employer" to persons engaged in a business within SIC Codes 20 through 39, where chemicals are either used are produced for use or distribution. The *Oklahoma Standard* does not limit the scope of employment through the SIC Codes, but instead covers all entities of this state and its political subdivisions, having in its employ one or more individuals performing services for it in employment.

OBJECTIVE 2

Identify goals of the Oklahoma Hazard Communication Standard.

- Emphasize the role of this training program as a guideline for creating an individual written program for each employer.
- Explain to participants that in some cases in this training program, the word "employer" will refer to the participants. They may actually be an employer as defined in the *Standard*, or may be representing an employer during this training program. Participants should remember, however, that the requirements for employers in the *Standard* refer to the employer as defined in that document.

OBJECTIVE 3

Identify key dates in the history of compliance with the Standard.

- Discuss the history of and need for the *Oklahoma Hazard Communication Standard*.

OBJECTIVE 4

Identify the affected parties in the Standard.

- Discuss in what ways the participants are affected parties.

OBJECTIVE 5 **List methods of determining the physical and health hazards of substances.**

- Discuss determining the physical and health hazards of substances.

OBJECTIVE 6 **Select from a list the requirements for keeping records.**

- Explain that further units will cover the topics discussed in this objective.

OBJECTIVE 7 **Identify the scope of provisions for trade secrets.**

- Give examples of trade secrets, if possible.

OBJECTIVE 8 **Identify the general content of an employee training program and the conditions for added instruction.**

- Discuss the shared responsibility of employers and service contractors. Provide examples of such contractors, i.e., professional painters, carpenters, etc.
- Explain that you will discuss the employee training guidelines in Unit 5.

OBJECTIVE 9 **Name basic topics for fire safety presented in the Standard.**

- Explain that you will discuss this topic fully in Unit 3.

OBJECTIVE 10 **Select from a list employee rights and responsibilities.**

- Emphasize that effective hazard communication training requires effort from both the employer and the employee.

OBJECTIVE 11 **Complete a checklist of physical and health hazards at your facility. (Worksheet 1)**

- Instruct participants to complete the Worksheet. Discuss the answers.

EVALUATION

Worksheet

- Participants should complete the Worksheet. The Worksheet should be used as an aid to discussing the physical and health hazards present at workplaces.

Review Sheet

- Participants should complete the Review Sheet. The Review Sheet should be used to reinforce key points in this unit and to evaluate participant's understanding of topics covered.

OPTIONAL RESOURCES

Publications

- *Hazardous Waste Management for the Small Quantity Generator.* Oklahoma Department of Vocational and Technical Education: Stillwater, OK, 1989.

- *Safety on the Job.* Oklahoma Department of Vocational and Technical Education: Stillwater, OK. 1989.

- *Understanding the Small Quantity Generator Hazardous Waste Rules: A Handbook for Small Businesses.* United States Environmental Protection Agency, 1986. Reprinted by the Oklahoma Department of Vocational and Technical Education, Curriculum and Instructional Materials Center.

- 29 CFR 1910 of the OSHA *General Industry Safety and Health Standards.* You must supplement 29 CFR 1910 with the *Federal Register* of August 24, 1987. This contains the Final Rule for Hazard Communication.

Videos

- *Hazard Communication.* Color, 20 minutes, VHS. Available from Summit Training Source, Inc., 6504 28th Street, S.E., Grand Rapids, MI 49506.

ANSWERS

REQUIREMENTS OF THE STANDARD

1

WORKSHEET 1

Answers will vary.

REVIEW SHEET

OBJECTIVE 1

1. difficult
2. poor
3. employer
4. personal, criminal
5. liability

OBJECTIVE 2

2, 4, 6, 7

OBJECTIVE 3

1. c
2. a

OBJECTIVE 4

e

OBJECTIVE 5

1. Manufacturers
2. Distributors
3. Service contractors

OBJECTIVE 6

1, 2, 4

OBJECTIVE 7

d

OBJECTIVE 8

1. d
2. a

OBJECTIVE 9

Answer should include any two of the following:

1. Informing firefighting personnel about the locations of hazardous substances
2. Identifying the fire hazards of chemicals with signs meeting standards for (1) size, (2) category, (3) location, and other requirements
3. Determining the "significant amount" of hazardous chemicals
4. Communicating with local fire departments concerning types and amounts of hazardous chemicals, and any unusual hazards.

OBJECTIVE 10

2, 4, 5

INSTRUCTOR'S GUIDE

INVENTORY CONTROL AND RECORDKEEPING 2

PREPARATION

- Obtain materials to supplement unit. See Optional Resources.
- Review the specific objectives to be covered in this unit.
- Make transparency masters, if necessary.
- Arrange for the use of all audiovisual equipment that will be needed.

DELIVERY

OBJECTIVE 1

Distinguish among elements in a system for inventory control and recordkeeping.

- Discuss the importance of inventory control and recordkeeping.

OBJECTIVE 2

Describe the two (2) types of CILs.

- Explain that the Chemical Information List (CIL) is the basis of a system for inventory control and recordkeeping. It is a tool that will help employers identify and control hazardous materials. CILs give employers and fire fighting authorities valuable information about the type and location of materials classified as hazardous.
- Explain that employers can create their own forms for CILs.
- Explain that CILs are flexible and help to both monitor the hazardous substances in a facility and protect employees and others who may come into contact with these substances.
- Show participants sample CILs.

OBJECTIVE 3

Discuss filing a Workplace CIL.

- Discuss filing a Workplace CIL.

OBJECTIVE 4

Answer questions about the purposes of the Employee Exposure Report.

- Discuss that employers can create their own form of employee exposure report, to meet their specific needs.
- Discuss each definition from the Department of Labor and be sure that all of the participants understand them.
- Explain that employers are not required to post the Employee Exposure Report.

OBJECTIVE 5

Identify ways of filing the Employee Exposure Report.

- Emphasize that these measures are important, should a court case arise questioning the liability of the employer.
- Suggest that employers adopt the filing system that best meets their needs, possibly a combination of the three options listed.

OBJECTIVE 6

List the information required on each MSDS.

- Emphasize that an MSDS is a very important part of a written program of hazard communication.
- Explain that the format of MSDSs varies, but that each should contain basic information about hazardous substances.

OBJECTIVE 7

Interpret the MSDS.

- Discuss the importance of the information in each MSDS section.
- Explain that the MSDS section titles and numbers presented in this text are examples. The exact section titles and numbers vary with different MSDSs.

- Have sample MSDSs and ask participants questions about interpreting the sample MSDSs.

OBJECTIVE 8

List sources of MSDSs.

- Ask participants why each of the guidelines regarding developing an MSDS is important with respect to a successful program of hazard communication.

OBJECTIVE 9

List the three (3) categories of information to record on the Oklahoma 200 Log and Summary.

- Explain that the system for inventory control and recordkeeping now includes (1) Chemical Information Lists for recording all of the hazardous substances present at the workplace, (2) Employee Exposure Reports to help monitor employees' cases of exposure to hazardous substances on the job, and (3) Material Safety Data Sheets to describe in detail each of the hazardous substances at the facility.

- Explain that the fourth element in the system is the Oklahoma 200 Log and Summary document, called the "Log and Summary of Occupational Injuries and Illnesses." This document lists the injuries and illnesses sustained at a workplace during a year, and records the extent of each case.

OBJECTIVE 10

Identify requirements for using the Oklahoma 200 Log and Summary.

- Explain that employers are exempt from the 200 Log record keeping requirements if they had no more than ten (10) employees at any time during the calendar year immediately preceding the current calendar year. Employers must have no more than 10 employees in the entire business, not at an individual physical location.

- Emphasize that it is an employer's OBLIGATION to complete the 200 Log for the Department of Labor. It is an employer's RESPONSIBILITY to use this form in a hazard communication program.

OBJECTIVE 11 **Explain when to label a hazardous substance.**

- Discuss the importance of labeling. Explain that labels are tools for communicating data about the hazards of materials that are stored in a variety of containers and pipes.
- Explain that labels are a part of a system for inventory control and recordkeeping because they help control the flow of hazardous substances between locations and between work areas.
- Show the video *Handling Hazardous Waste.*

OBJECTIVE 12 **Identify substances and containers to label.**

- Discuss the substances and containers to label.
- Show participants sample labels.

OBJECTIVE 13 **State the information required on labels.**

- Have sample labels and ask participants to identify the required information.

OBJECTIVE 14 **List guidelines for labeling.**

- Discuss guidelines for labeling.

OBJECTIVE 15 **State the two (2) areas covered by asbestos labeling.**

- Stress to participants that exposure to asbestos can have long-term health effects.

OBJECTIVE 16 **Identify requirements for cautionary labels.**

- Discuss cautionary label requirements.

OBJECTIVE 17 **Explain the importance of trade secrets in hazard communication.**

- Discuss the importance of trade secrets in hazard communication.

OBJECTIVE 18 **Name the individuals who must be told the chemical name of a trade secret.**

- Explain that these individuals must have access to the information that they request.

OBJECTIVE 19 **Select from a list information the MSDS for a trade secret must indicate.**

- Discuss the MSDS information for a trade secret.

OBJECTIVE 20 **Identify the *Standard* requirements for updating CILs and MSDSs.**

- Discuss the value to employers and employees of an up-to-date program of hazard communication.

OBJECTIVE 21 **State the two (2) kinds of required access to written records and the conditions for each.**

- Emphasize that without continuous access to written records, a program of hazard communication cannot be effective and successful.

OBJECTIVE 22 **List guidelines for creating and managing an inventory control and recordkeeping system.**

- Discuss guidelines for an inventory control and recordkeeping system.

OBJECTIVE 23

Label hazardous substances using the NFPA 704 System labels. (Worksheet 1)

- Have participants complete Worksheet 1. Explain the correct responses after all participants are ready.
- Create additional exercises using the NFPA 704 System. Ask participants to come up with examples.

EVALUATION

Worksheet

- Participants should complete the Worksheet. The Worksheet should be used as an aid to discussing the NFPA 704 System Labels.

Review Sheet

- Participants should complete the Review Sheet. The Review Sheet should be used to reinforce key points in this unit and to evaluate participant's understanding of topics covered.

OPTIONAL RESOURCES

Publications

- *Hazardous Waste Management for the Small Quantity Generator.* Oklahoma Department of Vocational and Technical Education: Stillwater, OK, 1989.
- *Safety on the Job.* Oklahoma Department of Vocational and Technical Education: Stillwater, OK, 1989.
- *29 CFR 1910 of the OSHA General Industry Safety and Health Standards* — Selected sections as needed.

Videos

- *Handling Hazardous Waste* (Packaging). Color, 18 minutes, BNA Communications, Inc., 9439 Key West Avenue, Rockville, Maryland 20850. This video examines how to select, fill, and label containers used for hazardous waste, including containerized solids, containerized liquids, bulk solids, and bulk liquids; Reportable Quantity discussed.

ANSWERS

INVENTORY CONTROL AND RECORDKEEPING 2

WORKSHEET 1

1. 2, 1, 2
2. 1, 2, 1
3. 3, 4, 3
4. 1, 0, 0

REVIEW SHEET

OBJECTIVE 1

1, 3, 4, 7, 9

OBJECTIVE 2

1. **Workplace CIL** — This Chemical Information List must include the common and trade names of all of the hazardous substances in the facility.
2. **Work Area CIL** — This Chemical Information List must include the common and trade names of all of the hazardous substances present in any work area.

OBJECTIVE 3

Answer should include the following:

- Maintain Workplace CILs in alphabetical order cross-referenced to their chemical names.
- Update, revise, and realphabetize the CILs as needed but not less than annually.

OBJECTIVE 4

1. d
2. d
3. c

OBJECTIVE 5

d

OBJECTIVE 6

Answer should include any five of the following:

1. Identity of the substance from its label and CIL
2. Chemical and common name of single substances or hazardous ingredients, including all synonyms
3. Physical and chemical characteristics
4. Physical and health hazards
5. Primary route(s) of entry (i.e. inhalation, skin absorption, ingestion)
6. Exposure limits (PEL, ACGIH TLV, other limits used or recommended by manufacturers, importers, or employers)
7. Carcinogen status — confirmed or potential
8. Precautions and control measures
9. Emergency and first aid precautions
10. Date of preparation or latest revision
11. Name(s), address(es), and telephone numbers of substance manufacturer or importer, including emergency numbers

OBJECTIVE 7

1. Information number and emergency number
2. Chemical and common name
3. Threshold limit value
4. Boiling point, vapor pressure, vapor density, specific gravity, melting point, evaporation rate, solubility in water, appearance and odor.
5. Flash point
6. Range, air
7. Inhaled, absorbed, ingested
8. Acute or chronic
9. Any materials that should not be in contact with the hazardous substance
10. Spill/release procedures, waste disposal method, handling/storing precautions, other precautions

OBJECTIVE 8

1. OBTAIN the MSDS for each hazardous substance from the manufacturer, distributor, or service contractor. These parties MUST provide employers with the appropriate MSDSs upon request.

2. DEVELOP their own MSDS for each hazardous substance on their CILs.

OBJECTIVE 9

1. Every occupational DEATH,

2. Every nonfatal occupational ILLNESS, AND

3. Those nonfatal occupational INJURIES that involve one or more of the following: loss of consciousness, restriction of work or motion, transfer to another job, or medical treatment other than first aid.

OBJECTIVE 10

b

OBJECTIVE 11

Labels must be applied in all cases before the substance is used in the employer's workplace. As a general rule, if you have a hazardous substance where your work, label it. Manufacturers, distributors, and importers must label all products leaving their workplace that contain hazardous substances. In the case of service contractors, they must label all hazardous materials that they bring to an employer's facility.

OBJECTIVE 12

c

OBJECTIVE 13

- To comply with the labeling requirement of the *Oklahoma Hazard Communication Standard*, labels MUST include the chemical name of the substance — as used on the CILs and MSDSs — and the CAS Number or the trade secret registry number.

- In the case of mixtures, labels must include the chemical names and CAS or trade secret registry numbers of the five (5) most predominant substances in the mixture.

OBJECTIVE 14

Answer should include any three of the following:

- Include all of the required information.
- Name specific hazard warnings. Be explicit, such as "causes lung damage."
- List the names and addresses of responsible parties.
- Communicate with words, pictures, or symbols on labels.
- Include information only if it does not conflict with Department of Transportation regulations for labeling.
- Replace illegible labels.
- Re-label containers filled with substances other than those listed on the original container label.

OBJECTIVE 15

1. EQUIPMENT with asbestos-containing material.
2. FACILITIES with asbestos-containing material used as acoustical materials on ceilings or walls.

OBJECTIVE 16

d

OBJECTIVE 17

Trade secrets are important in hazard communication because they may include hazardous materials. As noted in Unit 1, the trade secret status should protect the product but NOT the hazards. In a hazard communication program, trade secrets involve special requirements for withholding data about the "secret" substance, as well as MSDS information.

OBJECTIVE 18

1. A doctor who states in writing that a patient's health problems may result from occupational exposure to the trade secret substance.
2. A doctor who requests the information in an emergency.
3. A health professional, including industrial hygienists, toxicologists, or doctors who state in writing that the information is needed to evaluate potential health problems from actual exposure.

OBJECTIVE 19

1, 3, 5

OBJECTIVE 20

d

OBJECTIVE 21

- ACCESS to any CIL and MSDS to any affected employee or employee representative, upon request. Employers must provide access as soon as possible in a reasonable time, place, and manner, but no later than one (1) working day after the request;

  AND

- A COPY of any CIL and MSDS, or the mechanical means to copy, to any affected employee or employee representative within fifteen (15) days of the request.

OBJECTIVE 22

Answer should include any five of the following:

- Use the filing and storage system that promotes accessibility for written records.
- Review your inventory control and recordkeeping system every year.
- Update CILs and MSDSs as needed or required.
- Distribute any new or revised MSDSs as they become available.
- Revise your system of labels as needed.
- Report new information or procedures to employees and others affected by the change(s).
- Keep copies of CILs and MSDSs in a central location and near the work areas where hazardous substances are present.
- Provide continuous access to written records for employees and for service contractors and their employees.
- Choose someone to handle all requests for written records on a daily basis and in emergencies.

- Establish a procedure for both written and verbal requests for access to records.
- Record employees' requests for access to written records, using "check-out" and "sign-in" sheets.
- Promote the availability of records to employees.

FIRE SAFETY

PREPARATION

- Obtain materials to supplement unit. See Optional Resources.
- Review the specific objectives to be covered in this unit.
- Make transparency masters, if necessary.
- Arrange for the use of all audiovisual equipment that will be needed.

DELIVERY

OBJECTIVE 1

List the groups affected by the guidelines for fire safety.

- Discuss that it is not enough to maintain fire extinguishers, smoke alarms, and sprinkler systems to guard against the threat and damage of fire. Employers must communicate with fire departments. Stress to students that firefighters must know what to expect when they respond to an emergency at a facility. In effect, employers should be helping firefighters to develop their own CILs that cover the hazardous substances present in all of the locations under their jurisdiction.
- Emphasize that a failure to communicate could be FATAL. Firefighting personnel could be seriously injured or killed. Explain that local firefighting authorities may decline to respond and conduct interior emergency action for an emergency at a location if they have not been given adequate information about the hazardous materials at the location.

OBJECTIVE 2

Answer questions about the kind of fire safety information a proprietor must submit.

- Explain that the proprietor must provide information about the hazardous substances at the facility to the person(s) responsible for administering and directing the fire department in that county, municipality, or political subdivision. The fire department must have fire protection authority over the location, and the persons to whom the proprietor submits the required information can include the state fire marshal, fire chief, fire administrator, or their designees.

OBJECTIVE 3

Identify kinds of research laboratories.

- Give examples of research laboratories and projects they might be involved in.

OBJECTIVE 4

List the three groups who must receive a proprietor's fire safety information from a fire department.

- Discuss the fact that fire safety information should be communicated to those who have a need to know the information.

- Refer to the following list below if questions are asked by participants who are fire department personnel.

Responses to Questions from Fire Department Personnel

1. Where must a proprietor placard a building or area?

   ANSWER: The proprietor must placard a building or area in the location(s) necessary for YOU to identify the hazard when you arrive at the scene.

2. How should we respond when we are refused information needed to develop our own Chemical Information Lists for our fire department training program?

   ANSWER: A. TELL the proprietor that the *Oklahoma Hazard Communication Standard* covers the proprietor and the location.

   B. STATE that you need the information to help you comply with the law.

C. CONTACT the Oklahoma Department of Labor for assistance if the proprietor continues to refuse your request for information.

3. How do we determine whether placarding is required on the INSIDE of a particular building or area?

ANSWER: The test for significant amounts will determine whether placarding is needed on the inside of a building or area. To qualify for placarding, each interior location must satisfy the requirement for a significant amount for each chemical or combination of chemicals present.

4. What should we do if we cannot secure information about the hazardous chemicals within a site, building or yard area?

ANSWER: A. You are responsible for developing the hazard communication program for your fire department.

B. If you cannot secure information and make it available to your fire department personnel, you cannot properly develop your program and provide adequate safety training and information to your personnel.

C. If you cannot provide adequate safety training and information, you will be in violation of the *Standard* and you will become liable for the safety and health of your fire department personnel.

D. Without your requested information, you cannot make an informed analysis of the emergency situation at the particular location and cannot develop a reasonable and safe plan of attack to resolve the incident.

E. Without your requested information, you cannot reasonably order your firefighters to enter the fire area. Therefore, if you are refused information by any proprietor, you are well within your discretionary rights to refuse to allow your personnel to enter the fire area for an interior attack.

5. Can we exceed the scope of the *Oklahoma Hazard Communication Standard?*

   ANSWER: The *Standard* does not restrict your ability to write a local ordinance requiring more restrictive measures.

6. If department stores, drug stores and grocery stores are excluded from the requirements of the *Standard*, how can we train our personnel for the hazards found at those types of businesses?

   ANSWER: You are still responsible for training your personnel for the hazards found at these businesses, even though these businesses are excluded from the placarding requirements. You must train your personnel to recognize the wide spectrum of hazards found at such locations. To do this, you must survey those businesses and determine the types of hazards found at each location. Then, you must develop your training program based upon the results of your survey.

7. How do we know what training to include in our hazard communications program?

   ANSWER: Since your fire department personnel must be trained to function within a wide range of occupancies and over a large area, you must have a COMPREHENSIVE training program. Specifically, you can

   A. TRAIN your personnel to recognize groups of hazards.

   B. DIVIDE training by representative groups of chemicals.

   C. TRAIN your personnel to recognize categories of chemicals, and to respond accordingly. Examples include water-reactive chemicals, explosives, poisons, corrosives, flammable liquids and solids, oxidizers, radioactive materials, etc.

D. TEACH your personnel (1) the characteristics of materials in these and other groups, (2) the ways in which these materials can react under emergency conditions, (3) correct precautionary measures to take with each group, (4) mechanical methods of reducing hazards, and (5) the proper protective clothing and equipment required to handle emergencies involving these and other general categories of chemicals.

8. How should we respond when we find a placard with a high-level hazard indicated, such as a 3 or 4 rating in one or more of the hazard categories?

   ANSWER: Do not assume that the hazard exists throughout the area. The placard is a warning device. You should

   A. KEEP a list of areas at the location where hazardous materials are located.

   B. EVALUATE the particular situation based upon your experience.

   C. REMEMBER that a fire could be located in a separate area, away from the hazardous material(s).

   D. TAKE the appropriate precautions if your evaluation indicates that the high-level hazard is in the fire area.

9. How should we respond to questions that we cannot answer, based upon our knowledge and the material in this manual?

   ANSWER: Contact the Oklahoma Department of Labor for assistance.

OBJECTIVE 5

Discuss the confidentiality of information regarding fire safety.

- Discuss the confidentiality of information regarding fire safety.

OBJECTIVE 6

Answer questions about classifications of a "significant amount."

- Emphasize that ANY AMOUNT of a substance can be hazardous.

OBJECTIVE 7

Identify requirements for size, category, and location of fire hazard signs.

- Ask participants to discuss the signs posted at their workplaces.
- Show participants examples of hazardous substances placards.
- State examples of hazardous substances and ask them how they should be posted.

OBJECTIVE 8

Identify conditions for exception to sign-posting requirements.

- Discuss conditions for exception to sign-posting requirements.

OBJECTIVE 9

List guidelines for a fire safety communication system.

- Discuss guidelines for a fire safety communication system.
- Ask participants to discuss guidelines specific to their workplaces.

OBJECTIVE 10

Complete a fire safety checklist. (Worksheet 1)

- Instruct participants to complete the Worksheet.

EVALUATION

Worksheet

- Participants should complete the Worksheet. The Worksheet should be used as an aid in discussing fire safety in the workplace.

Review Sheet

- Participants should complete the Review Sheet. The Review Sheet should be used to reinforce key points in this unit and to evaluate participant's understanding of topics covered.

OPTIONAL RESOURCES

Publications

- *Essentials of Fire Fighting* (Current Edition), from the International Fire Service Training Association (IFSTA).

- Full color transparencies from the unit "Fire Behavior" in the manual *Essentials of Fire Fighting* from the International Fire Service Training Association (IFSTA). This set of 17 transparencies covers the burning process, and includes a plastic universal mount and an interleaf of each transparency.

☑ **NOTE:** International Fire Service Training Association (IFSTA) materials can be ordered from Fire Protection Publications, Oklahoma State University, Stillwater, OK 74078, or toll-free at (800) 654-4055.

- *Fire Protection Handbook* (Current Edition), from the National Fire Protection Association (NFPA).

- *Safety on the Job.* Oklahoma Department of Vocational and Technical Education: Stillwater, OK, 1989.

- 29 CFR 1910 of the OSHA *General Industry Safety and Health Standards* — Selected sections related to fire safety.

Videos

- *Chemical Safety: Fire and Explosion.* 1/2" VHS Color, 20 minutes, 1985, TELA.

- *Fire Prevention and Hazard Awareness.* 1/2" VHS Color, 22 minutes, 1987, CORO.

- *Safety on the Job: Fire Extinguishers.* 1/2" VHS Color, 23 minutes, 1988, AIMS.

WORKSHEET 1

Participant answers will vary.

REVIEW SHEET

OBJECTIVE 1

- Proprietors
- Research laboratories
- Fire departments

OBJECTIVE 2

1. name, location
2. chemical, common
3. additional

OBJECTIVE 3

d

OBJECTIVE 4

- Fire suppression companies mainly responsible for the particular employer's facility
- Fire prevention and inspection divisions within the jurisdiction that includes the employer's facility
- Any fire department employee or a designated employee representative, upon request

OBJECTIVE 5

Answer should include the following information:

- Fire departments may not make available to the public information regarding the location of hazardous substances at an employer's facility.
- Any fire department may request further information concerning the location of hazardous substances that are reasonably required to protect the health and safety of employees.
- Employers shall provide the fire deparment with the additional information upon request.

OBJECTIVE 6

d

OBJECTIVE 7

1. b
2. a
3. b

OBJECTIVE 8

d

OBJECTIVE 9

Answer should include any four of the following:

- COLLECT required fire safety information.
- ARRANGE fire safety information to meet specific needs.
- PROVIDE appropriate information to the appropriate firefighting personnel or others who need it.
- DISCUSS with firefighting personnel the *types* and *amounts* of hazardous substances at the facility, as well as any *unusual fire hazards.*
- DEFINE the fire hazards of substances present at the facility in "significant amounts."
- CREATE a system of signs.
- POST signs to make others aware of the fire hazards of the hazardous materials in the workplace.
- UPDATE the system for fire safety communication as needed and provide any new information to the proper authorities.

INSTRUCTOR'S GUIDE	*NON-ROUTINE TASKS*	4

PREPARATION

- Obtain materials to supplement unit. See Optional Resources.
- Review the specific objectives to be covered in this unit.
- Make transparency masters, if necessary.
- Arrange for the use of all audiovisual equipment that will be needed.

DELIVERY

OBJECTIVE 1

Define a non-routine task in hazard communication.

- Discuss non-routine tasks involving hazardous substances.
- Ask participants for examples of non-routine tasks in their workplaces.

OBJECTIVE 2

Identify the importance of non-routine tasks in hazard communication.

- Emphasize that non-routine tasks should be treated just as any other task involving hazardous substances.

OBJECTIVE 3

List guidelines for handling non-routine tasks involving hazardous substances.

- Discuss guidelines for handling non-routine tasks. Emphasize that these guidelines are general and that all of the specific guidelines presented in this program should be followed.

OBJECTIVE 4

List non-routine tasks at your workplace. (Worksheet 1)

- Instruct participants to complete the Worksheet. Discuss the answers.

EVALUATION

Worksheet

- Participants should complete the Worksheet. The Worksheet should be used as an aid to discussing non-routine tasks in the workplace.

Review Sheet

- Participants should complete the Review Sheet. The Review Sheet should be used to reinforce key points in this unit and to evaluate participant's understanding of topics covered.

OPTIONAL RESOURCES

Publications

- *Hazardous Waste Management for the Small Quantity Generator.* Oklahoma Department of Vocational and Technical Education: Stillwater, OK, 1989.

- *Safety on the Job.* Oklahoma Department of Vocational and Technical Education: Stillwater, OK, 1989.

NON-ROUTINE TASKS

WORKSHEET 1

Participant answers will vary.

REVIEW SHEET

OBJECTIVE 1

- Non-routine tasks are any special tasks or activities that an employer or employees complete that are not part of the daily routine or that arise due to special circumstances.
- A non-routine task can also be any task that must be performed in an emergency or during maintenance operations.

OBJECTIVE 2

c

OBJECTIVE 3

Answer should include any three of the following:

1. Identify all non-routine tasks at your workplace that involve the use of or exposure to hazardous materials.
2. Obtain or develop the necessary MSDSs for the hazardous substances involved in the non-routine tasks.
3. Describe the specific physical and health hazards to all employees affected.
4. Explain the labeling system or special instructions involved in the non-routine tasks.
5. Promote and provide access to the necessary MSDSs.

INSTRUCTOR'S GUIDE	*EMPLOYEE TRAINING GUIDELINES*	5

PREPARATION

- Obtain materials to supplement unit. See optional resources.
- Review the specific objectives to be covered in this unit.
- Make transparency masters, if necessary.
- Arrange for the use of all audiovisual equipment that will be needed.

DELIVERY

OBJECTIVE 1 **Identify requirements for an employee training program.**

- Remind participants that informed employees and an effective program of hazard communication will benefit both employers and their employees.

OBJECTIVE 2 **Identify persons the employer must train.**

- Explain that all employees must be knowledgeable for the program to operate successfully.
- Compare the shared responsibilities of employers and service contractors with those presented in Unit 1.

OBJECTIVE 3 **State when to provide added instruction.**

- Discuss when to provide added instruction. Give examples or ask participants to give examples.

OBJECTIVE 4 **Answer questions about the structure of a training program.**

- Discuss the structure of a training program. Ask participants how they think a training program can best meet the needs of their particular workplaces.

- Emphasize that a training schedule is vital to a consistent program of hazard communication.

OBJECTIVE 5

Answer questions about employee training recordkeeping.

- Emphasize that the documents are records of mutual responsibility for hazard communication between employers and employees.

OBJECTIVE 6

Complete a workplace training checklist. (Worksheet 1)

- Discuss the items contained in the checklist.
- Recommend "Optional Resources" that could be used in a workplace training program.
- Instruct participants to complete the Worksheet.

OBJECTIVE 7

Outline an employee training program. (Worksheet 2)

- Discuss the lesson plans with participants. Ask participants how the lesson plans could be adapted to fit the needs of different workplaces.
- Instruct participants to complete the Worksheet.

EVALUATION

Worksheet

- Participants should complete each Worksheet. The Worksheets should be used as an aid to discussing training programs in the workplace.

Review Sheet

- Participants should complete the Review Sheet. The Review Sheet should be used to reinforce key points in this unit and to evaluate participant's understanding of topics covered.

OPTIONAL RESOURCES

Publications

- *From Surviving to Thriving—How to Teach Adults.* Oklahoma Department of Vocational and Technical Education: Stillwater, OK, 1994.
- *Hazardous Waste Management for the Small Quantity Generator.* Oklahoma Department of Vocational and Technical Education: Stillwater, OK, 1989.
- *Safety on the Job.* Oklahoma Department of Vocational and Technical Education: Stillwater, OK, 1989.
- 29 CFR 1910 of the OSHA *General Industry Safety and Health Standards.*

Videos

- *Hazard Communication.* Color, 20 minutes, VHS. Available from Summit Training Source, Inc., 6504 28th Street, S.E., Grand Rapids, MI 49506.

☑ **NOTE:** Refer participants to Appendix III for additional sources of information.

ANSWERS — EMPLOYEE TRAINING GUIDELINES 5

WORKSHEETS

Participant answers will vary.

REVIEW SHEET

OBJECTIVE 1

e

OBJECTIVE 2

d

OBJECTIVE 3

Answer should include two of the following:

- When the employee may be routinely exposed to additional hazardous substances.
- When the employee may be exposed to substances requiring special precautions.
- When the employee's potential for exposure is increased through (1) changing work practices, (2) introducing new toxic and hazardous substances, and (3) introducing new potentially hazardous equipment.

OBJECTIVE 4

1. Answer should include two of the following:
   - written texts and policies
   - sample MSDSs, CILs, and labels
   - samples of hazardous substances, if appropriate
   - protective clothing and equipment
   - other materials, as needed

2. Answer should include the following information:

   - In large groups
   - By single departments or work areas
   - One-on-one with individual employees
   - A combination of the above

3. Identify information and training common to all employees; identify information and training for each specific department or work area.

OBJECTIVE 5

1. Records should be kept of (1) who attends the training sessions, and (2) when employees attend the training sessions.

2. A signed or initialed attendance list from each training session and an individual signed statement from each employee confirming the employee's receipt of training in hazard communication.

HAZARD[illegible]ICATION TRAINING
[illegible]R EMPLOYERS

REACTIVITY

PERSONAL PROTECTION

A WORKBOOK FOR COMPLYING WITH THE OKLAHOMA HAZARD COMMUNICATION STANDARD

CIMC

Participant Workbook

Oklahoma Department of
Vocational and Technical Education
1500 West Seventh Avenue
Stillwater, OK 74074-4364

AD-3132

HAZARD COMMUNICATION TRAINING FOR EMPLOYERS

Participant Workbook

Developed by the
Curriculum and Instructional Materials Center,
Oklahoma Department of
Vocational and Technical Education

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Curriculum and Instructional Materials Center

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OBJECTIVE SHEET

REQUIREMENTS OF THE STANDARD 1

INTRODUCTION

A variety of occupations and jobs in Oklahoma include situations that may expose employees — *an organization's most valuable asset* — to the two types of hazards associated with hazardous substances. These hazards are (1) **physical or safety hazards** and (2) **health hazards**. This unit introduces you to the requirements of the *Oklahoma Hazard Communication Standard.* Use this unit as a guide to interpret the conditions for complying with the *Standard.* This section presents you with an overview. To study the rules in their original context, see Appendix I.

UNIT OBJECTIVE

After completing this unit, you will show the following competencies by completing the activity on the Worksheet and by completing the Review Sheet.

SPECIFIC OBJECTIVES

1. Answer questions about the need for hazard communication training.
2. Identify goals of the *Oklahoma Hazard Communication Standard.*
3. Identify key dates in the history of compliance with the *Standard.*
4. Identify the affected parties in the *Standard.*
5. Answer questions about the terms "employer," "proprietor," and "hazardous substance" according to the *Standard.*
6. Select from a list the requirements for keeping records.
7. Identify the scope of provisions for trade secrets.
8. Identify the general content of an employee training program and the conditions for added instruction.
9. Name basic topics for fire safety presented in the *Standard.*
10. Select from a list employee rights and responsibilities.
11. Complete a checklist of physical and health hazards at your workplace. (Worksheet 1)

INFORMATION SHEET

REQUIREMENTS OF THE STANDARD

1

OBJECTIVE 1

Answer questions about the need for hazard communication training.

WORDS YOU SHOULD KNOW	
distributor	a business, other than a chemical manufacturer or importer, which supplies hazardous substances to the employer
employee	a person permitted to work by an employer in employment
employee representative	any individual or organization authorized by an employee to exercise such employee's rights
employer	any entity of the state and its political subdivisions, which has in its employ one or more individuals performing services for it in employment
facility	all buildings and other stationary items located on contiguous property under common ownership or control
hazardous substance	Any substance which is a physical hazard or a health hazard

WORDS YOU SHOULD KNOW	
health hazard	any chemical, or biological substance or agent which is listed in the U.S. Occupational Safety and Health Administration's list of Toxic and Hazardous Substances, 29 CFR Part 1910, Subpart "Z"; any other substances including but not limited to chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatopoietic systemics; agents which damage the lungs, skin, eyes or mucous membranes (See Appendix I for complete definition)
liability	a debt owed to an individual or agency; liability can be personal (civil), meaning that the liability is to an individual, or criminal, meaning that the liability is to the government (people as a whole)
manufacturer	a person or establishment where hazardous substances are produced, synthesized, extracted, imported, or otherwise made for use or distribution
physical hazard	any chemical which is a compressed gas, explosive, flammable, organic peroxide, oxidizer, pyrophoric, unstable (reactive) or water-reactive, or which is contained in the U.S. Occupational Safety and Health Administration's list of Hazardous Materials, 29 CFR Part 1910 Subpart "H" (See Appendix I for complete definition)

- Dealing with hazardous substances is a part of many jobs every day, whether it involves working with hazardous materials or managing other people who work with them.

- Recognizing hazardous substances may be difficult, since many products are not thought of as "hazardous."

- Communicating information about potential health and physical hazards in the workplace, due to the presence of hazardous substances, is the responsibility of the employer.

- Understanding the need for an effective program of hazard communication is simple — Oklahoma has a poor record of preventing job-related injuries and illnesses caused by the presence of hazardous substances on the job. (See Figures 1 and 2.)

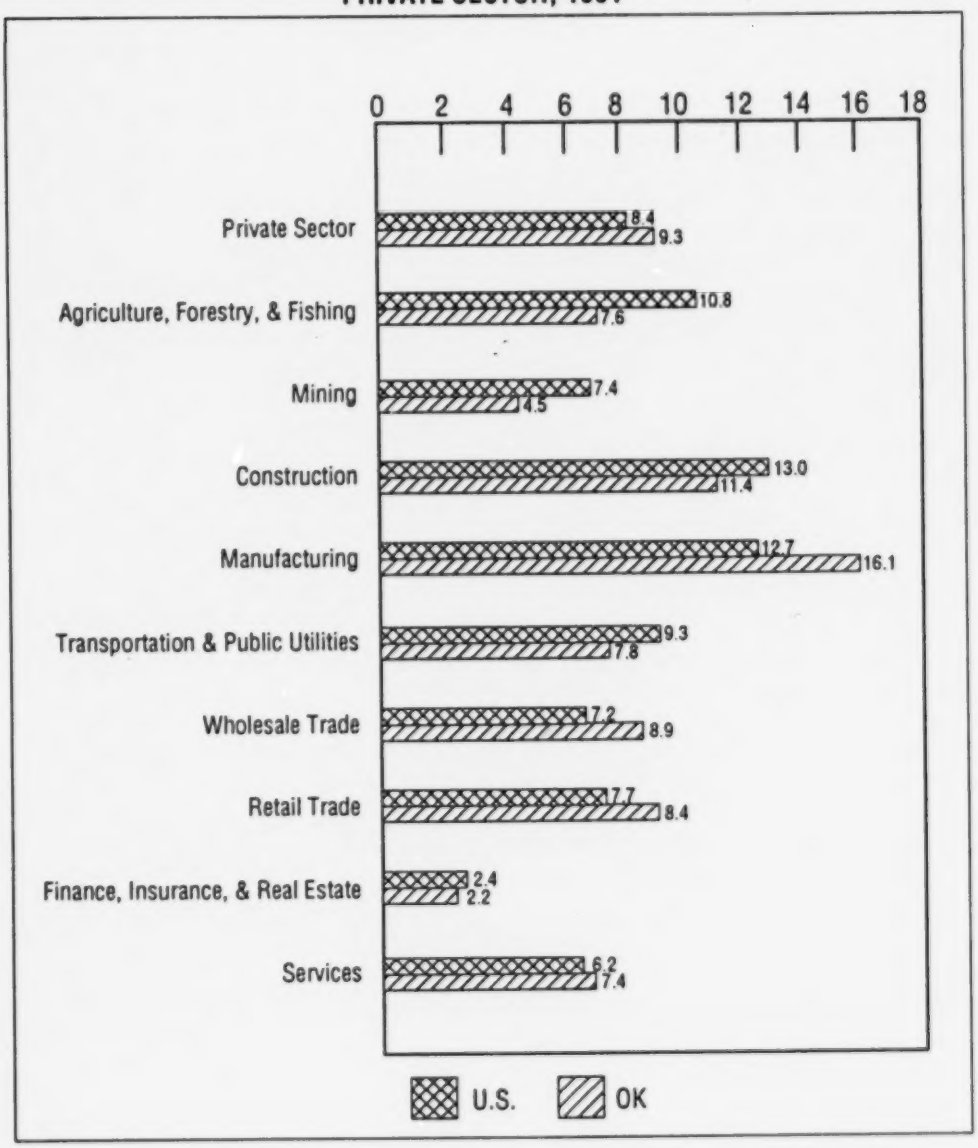
- The safety of an organization depends on successful communication among employers, employees, manufacturers, distributors, government agencies, and others about hazardous materials.

- Improved safety measures are cost-effective, and can help an organization reduce its potential for liability if an accident should happen.

- In addition to the hazardous materials that form a part of the daily operations of an organization, **the organization may also have to assume both personal and criminal liability for any hazardous substances that it disposes**. These liabilities extend from "the cradle to the grave." This means that an organization is responsible for the hazardous wastes at the facility from the time such wastes are created to the time they are destroyed. Even if another party is delegated the authority to handle such wastes, the organization cannot delegate the responsibility and potential liability for those substances.

FIGURE 1

COMPARISON OF INCIDENCE RATES OF OKLAHOMA WITH THE UNITED STATES PRIVATE SECTOR, 1991

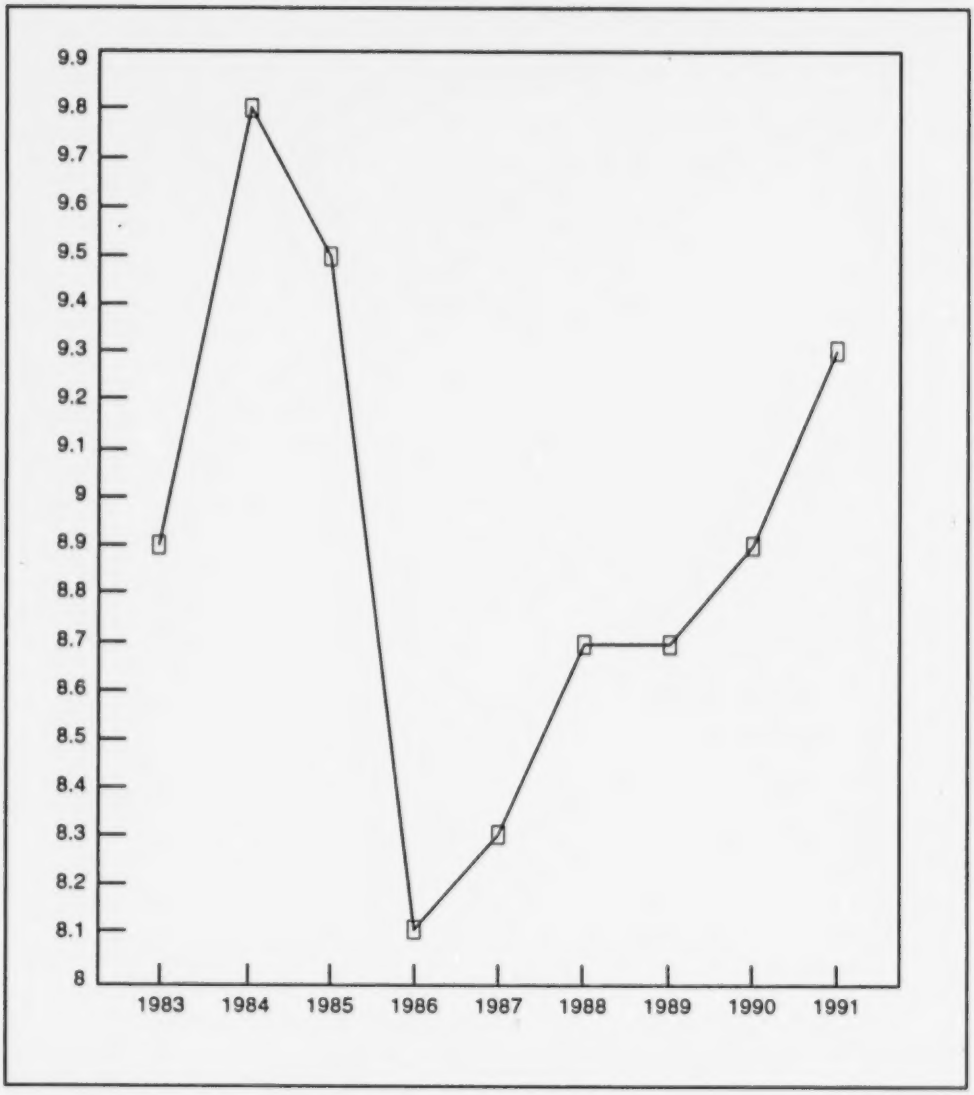


NOTE: Incidence rates indicate the number of recordable cases per 100 full-time workers per year.

SOURCE: Oklahoma Department of Labor, Statistical Research and Analysis Division, in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics.

FIGURE 2

PRIVATE SECTOR JOB INJURIES AND ILLNESSES PER 100 WORKERS



SOURCE: Oklahoma Department of Labor, Statistical Research and Analysis Division, and Bureau of Labor Statistics.

OBJECTIVE 2

Identify goals of the *Oklahoma Hazard Communication Standard.*

WORDS YOU SHOULD KNOW	
workplace	any location away from home, permanent or temporary, where any employee performs any work related activity in the course of his/her employment

The primary goal of the *Standard*, and this training program is to **reduce the risks involved in working with hazardous materials.**

In addition, the Standard can also help to

- Transmit vital information to public employees about the properties and potential hazards of hazardous substances in the workplace.

  ☑ **NOTE:** The *Federal Standard* (29 CFR 1910.1200) defines "employee" as workers who may be exposed to hazardous chemicals under normal operating conditions or foreseeable emergencies. Workers such as office personnel or bank tellers who encounter hazardous chemicals only in non-routine, isolated instances are not covered. The *Federal Standard* DOES NOT INCLUDE public employees. The *Oklahoma Standard* covers ALL PUBLIC EMPLOYEES.

- Reduce the incidence and cost of occupational illness and injury resulting from hazardous substances.

- Promote public employers' and employees' need and right to know.

OBJECTIVE 3

Identify key dates in the history of compliance with the *Standard.*

The *Oklahoma Hazard Communication Standard* lists four dates for complying with the *Standard*. AS OF

November 25, 1985 — Hazardous material containers must be accompanied by MSDSs.

May 25, 1986 — Employers must be in compliance with all provisions of the *Standard* including initial training for all current employees, EXCEPT the fire safety provisions.

October 25, 1986 — Political subdivisions of over 100,000 persons must be in compliance with the fire safety provisions.

January 25, 1987 — Political subdivisions of less than 100,000 persons must be in compliance with the fire safety provisions.

OBJECTIVE 4

Identify the affected parties in the *Standard*.

WORDS YOU SHOULD KNOW	
proprietor	the owner, manager, or other person or organization which has control over any location where hazardous substances are present, and which is subject to the jurisdiction of employers subject to the provisions of the *Standard*
research laboratory	A specially designated area used primarily for research, development, and testing activity, and not primarily involved in the production of goods in which hazardous substances are used

The *Oklahoma Hazard Communication Standard* applies to hazardous substances present in the workplace due to workplace operations, where employees may be exposed to hazards under NORMAL CONDITIONS of work or in a reasonably foreseeable emergency at the workplace resulting from operations.

AFFECTED

- Public employers using hazardous substances in Oklahoma
- Importers and sellers of a hazardous substance to public employers
- Manufacturers who produce, repackage, distribute and sell hazardous substances to any public employer in Oklahoma
- Proprietors of any location where hazardous substances are present

NOT AFFECTED

- Foods, drugs, cosmetics or tobacco products for employees' personal use in the workplace

  ☑ **NOTE:** An employer cannot circumvent the *Standard* by bringing these into the workplace.

- Consumer products and foods distributed to and used by the general public

- Hazardous substances developed and used only in research laboratories

OBJECTIVE 5

List methods of determining the physical and health hazards of substances.

In determining the physical and health hazards of substances, appropriate MSDSs shall be provided by:

1) Manufacturers

2) Distributors

3) Service contractors

☑ **NOTE:** See 380:45-1-2 for all of the definitions relating to the *Standard*. Refer to 380:45-3-3 for requirements of providing CIL and MSDS to purchasers. In addition, health hazards as defined in the *Standard* include any chemical or biological substance or agent listed in Subpart Z of OSHA's 29 CFR Part 1910. Also, (1) any substance for which its manufacturer provides a Material Safety Data Sheet as a hazardous material, and (2) other substances considered hazardous by the Commissioner of the Department of Labor, based on documented scientific evidence and threatening the health of an employee, are included in the category of "health hazards." See 29 CFR 1910 Subpart H and Subpart Q and the Laboratory Safety and Chemical Hygiene Plan (29 CFR 1910).

OBJECTIVE 6

Select from a list requirements for keeping records.

WORDS YOU SHOULD KNOW	
chemical name	The scientific designation of a substance
common name	Any designation or identification, such as trade name or number, code name or number, brand name or generic name used to identify a substance other than by its chemical name
container	any barrel, bottle, box, can, cylinder, drum, pipe or piping system, storage tank, reaction vessel, or the like that contains a hazardous material

The *Standard* requires employers to:

- HAVE a hazard communications program.

  ☑ **NOTE:** The *Federal Standard* (29 CFR 1910.1200) and the Oklahoma version require that employers must develop and implement a WRITTEN program in hazard communications for their workplaces.

- MAINTAIN a Chemical Information List (CIL) containing the common and trade names of all hazardous substances in the workplace, and a record of employee exposures indicating the types of chemical exposures received during employment.

- KEEP a Material Safety Data Sheet (MSDS) for each hazardous substance on the CIL.

- UPDATE all CILs and MSDSs at least yearly.

- LABEL every container in the work area that contains a hazardous substance, including caution labels for materials or places containing asbestos.

- TRAIN employees about the hazardous substances to which they are exposed.

- PROVIDE access to records regarding the hazardous substances at the workplace.

In the case of research laboratories, the employer must provide the following to all employees and their designated representatives:

- The chemical name of the hazardous substances in the laboratory.

- A training program to educate employees about (1) appropriate work practices, (2) protective measures, and (3) emergency procedures regarding hazardous materials in the workplace.

The employer at a research laboratory must also:

- Maintain an MSDS and/or any additional information concerning the toxicity or hazards of hazardous substances.

- Provide access to this information to employees and their designated representatives.

- Keep readable labels on incoming containers of hazardous substances. The *Oklahoma Hazard Communication Standard* includes provisions for labeling practices and outlines (1) times for labeling materials, (2) the kinds of labeled containers, (3) standards for labels, and (4) procedures for asbestos labeling.

  ☑ **NOTE:** See Unit 2, "Inventory Control and Recordkeeping" for specific information about keeping records and labeling.

OBJECTIVE 7

Identify the scope of provisions for trade secrets.

WORDS YOU SHOULD KNOW	
trade secret	Any formula, plan, pattern, process, production data, information, or compilation of information, which is not patented, which is known only to a manufacturer and certain other individuals, and which is used in the fabrication and production of an article of trade or service, and which gives the manufacturer possessing it a competitive advantage over businesses who do not possess it, or the secrecy of which is certified by an appropriate official of the federal government as necessary for national defense purposes

Hazardous substances or products containing hazardous substances and labeled as "trade secrets" are not outside the provisions of the *Oklahoma Hazard Communication Standard.* Such "secrets," while protecting the product, must not also protect the hazards. Treat any dangerous trade secrets as you would other hazardous substances — responsibly.

The *Standard* provides for trade secrets with respect to:

- Claiming and filing for trade secret status.
- Providing information about substances labeled as trade secrets.
- Withholding information about these substances.
- Keeping MSDSs for substances considered trade secrets.

☑ **NOTE:** See Unit 2, "Inventory Control and Recordkeeping" for specific information on trade secrets.

OBJECTIVE 8

Identify the general content of an employee training program and the conditions for added instruction.

WORDS YOU SHOULD KNOW	
service contractor	Any person, company, or corporation that provides a service to the employer with or without a written agreement

The *Standard* requires each employer to have an employee training and education program. This program must communicate information to employees about the hazardous substances to which they are exposed, as well as instruct employees on obtaining and using Chemical Information Lists and Material Safety Data Sheets.

GENERAL CONTENT

- The nature of the hazards at the workplace
- Appropriate work practices
- Protective measures
- Emergency procedures

The MSDS provides the basis for your employee training and education program.

CONDITIONS FOR ADDED INSTRUCTION

- When the employee may be routinely exposed to additional hazardous substances
- When the employee may be exposed to substances requiring special precautions
- When the employee's potential for exposure is increased through
  - changing work practices
  - introducing new toxic and hazardous substances

- ☐ introducing new potentially hazardous equipment

☑ **NOTE:** Employers are responsible for developing and using an employee training program. However, if a service contractor's work or materials pose a health hazard to employees, the employer can also require the service contractor to provide employees with the necessary training about the contractor's hazardous substances. A service contractor is any person, company, or corporation that provides a service to the employer with or without a written agreement. The employer must also notify the service contractor of any hazards he or she may be exposed to while in the facility or on site.

OBJECTIVE 9

Name basic topics for fire safety presented in the *Standard*.

WORDS YOU SHOULD KNOW	
fire department	any duly constituted fire department operating under the authority of Title 11 article XXIX fire departments or Title 19 Chapter 21 fire protection districts or Title 18 corporations; industrial fire brigades are excluded from this definition
significant	any amount of hazardous material(s) meeting the criteria in 380:45-5-5(d) of the *Standard*

While working with or around hazardous substances, employers and employees must be alert to the special fire hazards that are associated with these materials, and the correct steps to follow in order to protect lives and property.

Fire safety as specified in the *Standard* includes

1. Informing firefighting personnel about the locations of hazardous substances.

2. Identifying the fire hazards of chemicals with signs meeting standards for (1) size, (2) category, (3) location, and other requirements.

3. Determining the "significant amount" of hazardous chemicals.

☑ **NOTE:** You should realize that **any** amount **can** be hazardous.

4. Communicating with local fire departments concerning types and amounts of hazardous chemicals, and any unusual hazards.

☑ **NOTE:** The *Standard* is very explicit about the requirements for fire safety. See Unit 4, "Fire Safety," for the specific standards for your workplace.

OBJECTIVE 10

Select from a list employee rights and responsibilities.

In working with or around hazardous substances, employees must act RESPONSIBLY and within their rights. In addition to company or agency policies, a number of regulations exist specifically for persons working with hazardous substances. These regulations govern both employee rights AND responsibilities.

EMPLOYEE RIGHTS

- Request CILs and MSDSs and, if the employee is not given access to these documents, to
- Refuse to work (1) with the hazardous substances or (2) at the location.

☑ **NOTE:** An employer may NOT discharge or initiate any adverse personnel action against employees exercising their rights as stated above.

EMPLOYEE RESPONSIBILITIES

- Following the guidelines established in the employee training program, in accordance with the *Standard*.
- Notifying the employer upon receiving a potentially hazardous exposure to any hazardous substance.

☑ **NOTE:** An employer MAY take appropriate disciplinary action when employees do not comply with the employer's established precautionary measures.

WORKSHEET 1 | ***REQUIREMENTS OF THE STANDARD*** | **1**

Name _____

OBJECTIVE 11

Complete a checklist of physical and health hazards at your workplace.

INSTRUCTIONS

Part 1

Study the types and examples of physical and health hazards given on page 19.

Part 2

Complete the checklist of physical hazards and health hazards at your workplace. The checklists are given on pages 21 and 22.

PHYSICAL HAZARDS

TYPE	EXAMPLES
Flammable liquids	Gasoline, paint thinner
Flammable solids	Magnesium
Combustible liquids	Diesel fuel
Compressed gases	Oxygen, chlorine, acetylene
Explosives	Dynamite, nitroglycerine
Organic peroxides	Methylethylketone peroxide (plastic harderner)
Oxidizers	Sulfuric acid, hydrogen peroxide
Pyrophoric materials	Potassium, wet magnesium
Reactive/Unstable materials	Anhydrous ammonia
Water-reactive materials	Sodium, potassium, sodium peroxide, burning magnesium

HEALTH HAZARDS

TYPE	EXAMPLES
Carcinogens	Asbestos, benzene (gas), coke oven emissions
Corrosives	Acids and bases (hydroxides)
Irritants	Gasoline, formaldehyde, ketones, sulfuric acid fumes
Toxic agents	Pesticides, herbicides, paint removers and disinfectants with phenyl components
Highly toxic agents	Hydrogen cyanide, pesticides, dioxin
Reproductive toxins	Lead, mercury, ethyl alcohol, carbontetrachloride
Hepatotoxins	Dioxane, acetates, TNT, carbontetrachloride
Nephrotoxins	Acetates, chloroform, mercury, carbon disulfide
Neurotoxins	Mercury, tetraethyl lead (some gasolines), carbonates
Sensitizers	Affects immune response — grain dust, polyvinyl chloride (PVC) Affects pulmonary system — wood pulp dust, enzyme-based detergents Affects skin — creosote, formaldehyde, formic acid

PLUS agents that damage lungs, skin, eyes, mucous membranes, and hematopoietic systems (systems involved in the formation of blood cells).

PHYSICAL HAZARDS

TYPE	EXAMPLES	LOCATION
Flammable liquids		
Flammable solids		
Combustible liquids		
Compressed gases		
Explosives		
Organic peroxides		
Oxidizers		
Pyrophoric materials		
Reactive/Unstable materials		
Water-reactive materials		

HEALTH HAZARDS

TYPE	EXAMPLES	LOCATION
Carcinogens		
Corrosives		
Irritants		
Toxic agents		
Highly toxic agents		
Reproductive toxins		
Hepatotoxins		
Nephrotoxins		
Neurotoxins		
Sensitizers		

REVIEW SHEET

REQUIREMENTS OF THE STANDARD 1

Name _____

OBJECTIVE 1

Answer questions about the need for hazard communication training. Write the correct words in the blanks.

1. Recognizing hazardous substances may be _____, since many products are not thought of as hazardous.
2. Oklahoma has a _____ record of preventing job-related injuries and illnesses caused by the presence of hazardous substances on the job.
3. Communicating information about potential health and physical hazards in the workplace, due to the presence of hazardous substances, is the responsibility of the _____.
4. An organization may have to assume both _____ and _____ liability for any hazardous substances that they dispose of.
5. Improved safety measures can help organizations reduce their potential for _____ if an accident should happen.

OBJECTIVE 2

Select from a list goals of the *Oklahoma Hazard Communication Standard.* Place an "X" in front of correct answers.

____ 1. Teach employees about the dangers of fire fighting.

____ 2. Reduce the incidence and cost of occupational illness and injury resulting from hazardous substances.

____ 3. Transfer liability for hazardous substances from employers to employees.

____ 4. Help reduce the risks involved in working with hazardous substances.

____ 5. Identify employers who are not in compliance with the *Oklahoma Hazard Communication Standard.*

____ 6. Promote public employers' and employees' need and right to know.

____ 7. Transmit vital information to public employees about the properties and potential hazards of hazardous substances in the workplace.

OBJECTIVE 3

Identify key dates in the history of compliance with the *Standard.*

1. From what date were political subdivisions of less than 100,000 persons to be in compliance with all provisions of the *Standard*, including fire safety provisions?

   a. December 15, 1985
   b. October 25, 1986
   c. January 25, 1987
   d. May 25, 1989

2. From what date were hazardous materials containers to be accompanied by MSDSs?

   a. November 25, 1985
   b. May 25, 1986
   c. October 25, 1986
   d. January 25, 1987

OBJECTIVE 4

Identify the affected parties in the *Standard.* Circle the correct answer.

The affected parties include which of the following?

a. Public employers using hazardous substances in Oklahoma
b. Importers and sellers of a hazardous substance to public employers
c. Manufacturers who produce, repackage, distribute and sell hazardous substances to any public employer in Oklahoma
d. All are affected parties

OBJECTIVE 5

List methods of determining the physical and health hazards of substances. List two methods in the spaces below.

1. _____

2. _____

OBJECTIVE 6

Select from a list requirements for keeping records. Place an "X" in front of correct requirements.

The *Standard* requires employers to:

____ 1. Train employees about the hazardous substances to which they are exposed.

____ 2. Keep a Material Safety Data Sheet (MSDS) for each substance of the CIL.

____ 3. Label only containers that are kept for more than one week.

____ 4. Have a hazard communication program.

____ 5. Update all CILs and MSDSs every three years.

OBJECTIVE 7

Identify the scope of provisions of trade secrets. Circle the correct answer.

Hazardous substances or products containing hazardous substances and labeled as "trade secrets" are

a. Outside the provisions of the *Oklahoma Hazard Communication Standard*
b. Important to the manufacturer or distributor only
c. Not as dangerous as other substances at the workplace
d. None of the above

OBJECTIVE 8

Identify the general content of an employee training program and the conditions for added instruction. Circle the correct answers.

1. As described in the *Standard*, the training program must include all of the following EXCEPT

   a. The nature of the hazards at the workplace
   b. Appropriate work practices
   c. Protective measures and emergency procedures
   d. Waste disposal methods

2. Which of the following is NOT a reason for additional employee training?

   a. When the employee is exposed to a non-hazardous substance
   b. When the employee may be exposed to substances requiring special precautions
   c. When the employee may be routinely exposed to additional hazardous substances
   d. When the employee's potential for exposure is increased

OBJECTIVE 9

Name basic topics for fire safety presented in the *Standard*. Write two topics for fire safety presented in the *Standard*.

1. _____

2. _____

OBJECTIVE 10

Select from a list employee rights and responsibilities. Place an "X" in front of correct items.

EMPLOYEE RIGHTS

____ 1. To not work with any hazardous substances under any conditions.

____ 2. Request CILs and MSDSs.

____ 3. Be given extra payment for working with hazardous substances.

____ 4. If not given CILs or MSDSs refuse to work 1) with the hazardous substance or 2) at the location.

EMPLOYEE RESPONSIBILITIES

____ 5. Following guidelines established in the employee training program, in accordance with the *Standard.*

____ 6. Notifying co-workers upon receiving a potentially hazardous exposure to any hazardous substances.

OBJECTIVE SHEET

INVENTORY CONTROL AND RECORDKEEPING 2

INTRODUCTION

Inventory control and recordkeeping is probably the most important part of a total hazard communication program. By keeping complete and accurate records concerning the hazardous substances in the workplace, an employer will be taking an important step toward reducing or eliminating the risks involved with those substances. Complete and accessible records are vital links in the flow of information about hazardous materials, from the supplier to the employer to valued employees. Employers can use such records to keep employees informed about the substances with which they work and, as a result, reduce the number of job-related injuries and illnesses over the long term.

UNIT OBJECTIVE

After completing this unit, you will show the following competencies by completing the activities on the Worksheet and by completing the Review Sheet.

SPECIFIC OBJECTIVES

1. Distinguish among elements in a system for inventory control and recordkeeping.
2. Describe the two (2) types of CILs.
3. Discuss filing a Workplace CIL.
4. Answer questions about the purposes of the Employee Exposure Report.
5. Identify ways of filing the Employee Exposure Report.
6. List the information required on each MSDS.
7. Interpret the MSDS.
8. List sources of MSDSs.
9. List the three (3) categories of information to record on the Oklahoma 200 Log and Summary.
10. Identify requirements for the Oklahoma 200 Log and Summary.
11. Explain when to label a hazardous substance.

12. Identify substances and containers to label.

13. State the information required on labels.

14. List guidelines for labeling.

15. State the two (2) areas covered by asbestos labeling.

16. Identify requirements for cautionary labels.

17. Explain the importance of trade secrets in hazard communication.

18. Name the individuals who must be told the chemical name of a trade secret.

19. Select from a list information the MSDS for a trade secret must indicate.

20. Identify the *Standard* requirements for updating CILs and MSDSs.

21. State the two (2) kinds of required access to written records and the conditions for each.

22. List guidelines for creating and managing an inventory control and recordkeeping system.

23. Label hazardous substances using the NFPA 704 System labels. (Worksheet 1)

INFORMATION SHEET

INVENTORY CONTROL AND RECORDKEEPING 2

OBJECTIVE 1

Distinguish among elements in a system for inventory control and recordkeeping.

To create and maintain an effective system for inventory control and recordkeeping, employers need to consider the basic elements listed below, each of which has a special role in hazard communication.

- Chemical Information List (CIL) — a written record of all of the hazardous substances in a facility

  ☞ **NOTE:** Employers must maintain a CIL on each employee indicating the type of chemical exposure received throughout their employment.

- Employee Exposure Report — lists the type of exposure to hazardous substances for each employee

- Material Safety Data Sheet (MSDS) — provides valuable information about the characteristics of each substance, its physical and health hazards, precautions for safe handling and use, and other specific data

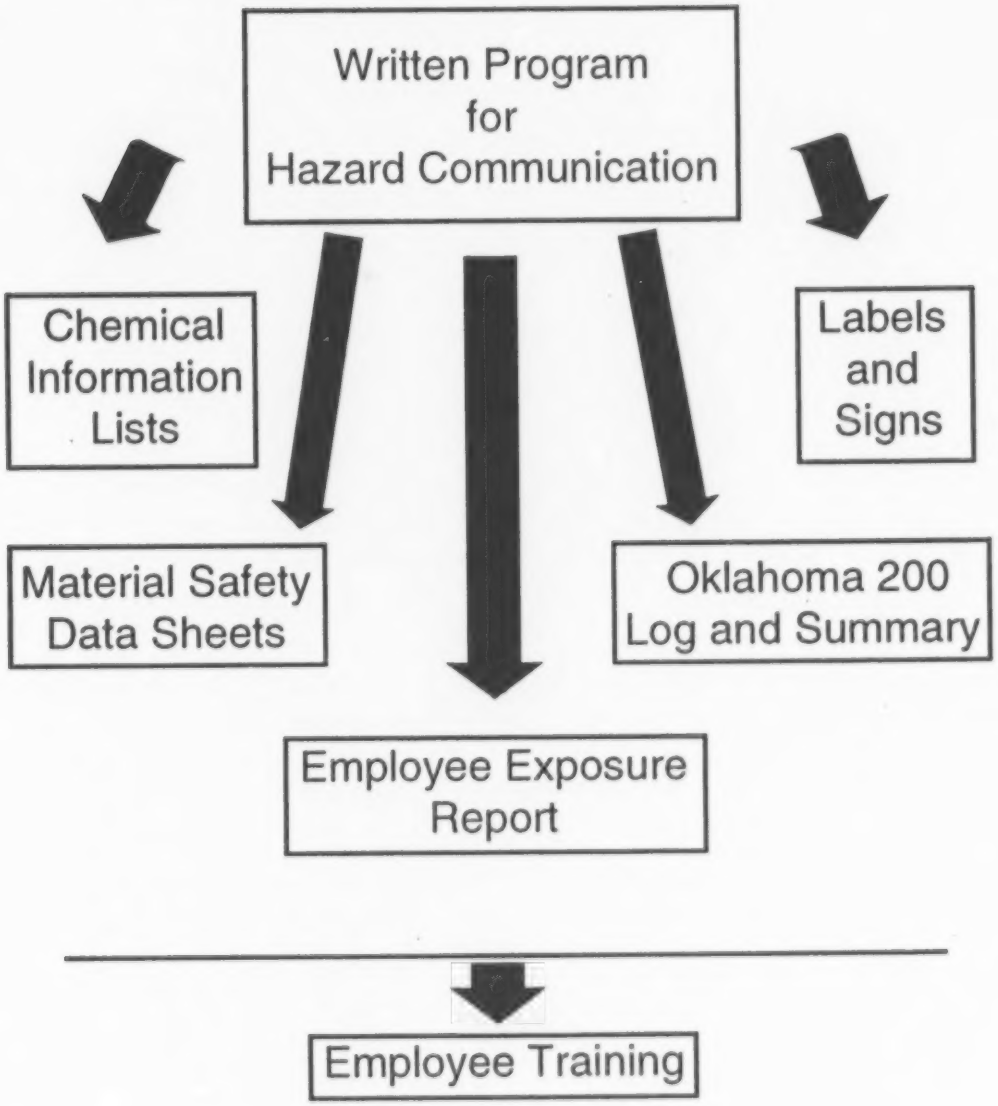
- Oklahoma 200 Log and Summary ("200 Log") — lists the injuries and illnesses sustained at a workplace during a year, and records the extent of each case

- Labels — tools for communicating data about the hazards of materials that are stored in a variety of containers and pipes; labels are a part of a system for inventory control and recordkeeping because they help control the flow of hazardous substances between locations and work areas

See Figure 1.

FIGURE 1

THE PROCESS OF HAZARD COMMUNICATION



OBJECTIVE 2

Describe the two (2) types of CILs.

WORDS YOU SHOULD KNOW	
Work area	Any room or defined space, whether within or outside of a building or other structure, where hazardous substances are present, produced, used or where exposure could occur.

There are two types of CILs identified in the *Oklahoma Hazard Communication Standard.*

1. **Workplace CIL** — This Chemical Information List must include the common and trade names of all of the hazardous substances in the facility. With the Workplace CIL, employers should:

   - KEEP a CIL for each hazardous substance present at their facility.
   - FILE the CILs alphabetically.
   - CROSS-REFERENCE the CILs to the chemical names of each substance.

2. **Work Area CIL** — This Chemical Information List must include the common and trade names of all of the hazardous substances present in any work area.

   ☞ **NOTE:** The work area CIL is required under the fire safety provisions (Subchapter 5, 380:45-5-1) of the *Standard.* In contrast to the Workplace CIL, the Work Area CIL is a "visible record." Employers should post this second type of CIL in the appropriate work areas where employees can read it. In this way, employers are informing employees about the hazardous substances they are working with or around.

OBJECTIVE 3

Discuss filing a Workplace CIL.

In order to use the comprehensive Workplace CIL effectively and responsibly, employers must:

- Maintain Workplace CILs in alphabetical order cross-referenced to their chemical names.

- Update, revise, and realphabetize the CILs as needed but not less than annually.

  ☑ **NOTE:** See 380:45-3-1 and 380:45-3-4 of the *Oklahoma Standard* for requirements on filing a Workplace CIL.

OBJECTIVE 4

Answer questions about the purposes of the Employee Exposure Report.

Employers should use the Employee Exposure Report to record cases of exposure:

1. occurring during employees' previous employment

2. occurring during their current employment

☑ **NOTE:** Use a separate Employee Exposure Report for each case of exposure and file with other employee records. See Figure 2.

- A complete and accurate report of cases of employee exposure to hazardous substances benefits everyone involved. In order to maintain these reports as a part of an inventory control and recordkeeping system, employees must inform their employers about all of their past and present cases of exposure to hazardous materials on the job. Employers should encourage "information sharing" between their employees and themselves.

- What kinds of information should employers record on the Employee Exposure Report? Consider the following definitions from the Department of Labor:

  1. Potentially Hazardous Exposure — When "an employee may have been exposed by any route of entry . . . to a known hazardous substance which may result in the employee sustaining an injury from the known hazardous substance."

  2. Exposure — When "actual contact with a known hazardous substance has occurred or has been discovered to have occurred . . . by any method of entry . . . and which may result or does result in an injury to the employee from the contact."

  ☑ **NOTE:** Record cases on the Employee Exposure Report that involve exposure as defined, but always try to reduce the risk of any potentially hazardous exposure in the workplace.

- If an employer learns that an employee has received a potentially hazardous exposure, the employer must (1) notify the employee immediately and (2) take any necessary action for medical evaluation, monitoring, or treatment.

- In addition to the Employee Exposure Report, employers must also file a Fatality/Multiple Hospitalization Report for any job-related fatality or multiple hospitalization incident. Who must file this report? All city, county, and state agencies are required to submit the Fatality Report to the Department of Labor within forty-eight (48) hours of the time of the fatality. (The Fatality Report is a part of an employer's hazard communication program because it applies to any job-related fatality, including deaths related to the presence or use of hazardous substances in the workplace.)

☑ **NOTE:** For more information about the Fatality/Multiple Hospitalization Report, contact the Oklahoma Department of Labor. If there have been no fatalities at your facility from January 1, 1986 to the present, you do not have to reply to the Department of Labor concerning past cases. However, you must keep the report on file in order to use it for any future cases, should they occur.

FIGURE 2

EMPLOYEE EXPOSURE REPORT

Department _____

Supervisor _____

Date of Exposure _____

Use a separate form for EACH exposure

Employee Name _____ ID# _____

Address _____ City/ State/ Zip _____

Age _____ Date of Birth _____ SS# _____

Hazardous Material Involved (include COMMON and TRADE names) _____

_____

_____

Location of Incident _____

Method of Exposure: Ingested _____ Absorbed _____ Inhaled _____

Time of Exposure in Minutes _____

Type of Personal Protection Used _____

_____

Medical Evaluation, Monitoring, or Treatment _____

_____

_____

_____

Location of Treatment Facility _____

_____ Physician _____

Submitted by: _____ Date _____

Received by: _____ Date _____

OBJECTIVE 5

Identify ways of filing the Employee Exposure Report.

When filing the Employee Exposure Report, employers are required to:

1. Keep the report for at least forty (40) years,

   OR

2. Provide the report to employees on a regular periodic basis,

   OR

3. Provide the report to employees upon termination of employment, with a statement on the report reading "You should preserve this report for future reference."

☑ **NOTE:** See 380:45-3-1 of the *Standard* for requirements of filing CILs on employees. Employers may decide to distribute the Employee Exposure Reports after receiving a signed affidavit from each employee confirming that the employee did receive a complete and accurate report from the employer. The employer keeps the affidavit as a record of responsibility and liability, while the employees can keep their reports for their personal medical records.

OBJECTIVE 6

List the information required on each MSDS.

WORDS YOU SHOULD KNOW	
carcinogen	any substance or agent that produces cancer

After an employer has listed the hazardous substances on the Workplace CIL, the employer must then describe each of these substances on a separate MSDS.

Each MSDS must contain at least the following information about the hazardous substances from the Chemical Information List:

1. Identity of the substance from its label and CIL

2. Chemical and common name of single substances or hazardous ingredients, including all synonyms

3. Physical and chemical characteristics

4. Physical and health hazards

5. Primary route(s) of entry (i.e. inhalation, skin absorption, ingestion)

6. Exposure limits (PEL, ACGIH TLV, or other limits used or recommended by manufacturers, importers, or employers)

7. Carcinogen status — confirmed or potential

8. Precautions and control measures

9. Emergency and first aid precautions

10. Date of preparation or latest revision

11. Name(s), address(es), and telephone numbers of substance manufacturer or importer, including emergency numbers

OBJECTIVE 7

Interpret the MSDS.

Each Material Safety Data Sheet must include at least the information listed. However, the format of the MSDS may vary. In order for employers to use the MSDS effectively for themselves, their employees, and others involved with hazardous substances, employers must be able to:

1. read it, and

2. understand it.

Employers must teach their employees how to read the general sections of an MSDS. Employees should then be able to read any specific MSDS, even if the section numbers, titles, and specific content of each section should vary.

While the exact format will vary, each MSDS will contain the following general sections and data. See Figure 3 for a sample MSDS form.

Heading

IDENTITY — The common and trade name of the hazardous substance, including any synonyms. The identity should be the same as that on the substance's label and CIL.

Section I — Manufacturer's Data

- Name of the substance manufacturer
- Address of the manufacturer
- Telephone numbers of the manufacturer (both an information number and an emergency number)
- Date prepared or revised
- Signature of preparer (optional)

Section II — Hazardous Ingredients/Identity Information

HAZARDOUS COMPONENTS — The chemical and common name of hazardous ingredients, including all synonyms.

PEL — Permissible Exposure Limit

TLV — Threshold Limit Value, the concentration of a chemical to which an employee may be exposed, over a career, without suffering any ill-effects.

OTHER LIMITS — Limits recommended by the manufacturer or importer of the hazardous substance.

PERCENT (%) — The percentage of the total substance accounted for by the hazardous ingredient.

Section III — Physical/Chemical Characteristics

BOILING POINT — The temperature at which a liquid changes to a vapor, usually given in degrees Fahrenheit at the sea-level pressure of 14.70 psi (760 millimeters of mercury).

VAPOR PRESSURE — The pressure exerted by a saturated vapor — a vapor at the temperature of the boiling point corresponding to its pressure — above its own liquid, expressed in millimeters of mercury (Hg).

VAPOR DENSITY — The ratio of the density of a volume of vapor to the density of an equal volume of air. Air has a vapor density of (1). Vapors with a density less than (1) rise in air, while those with a density greater than (1) sink.

SPECIFIC GRAVITY — The ratio of the weight of a volume of material compared to the weight of an equal volume in water. Water has a specific gravity of (1). Liquids with a specific gravity less than (1) float on water, while those with a specific gravity greater than (1) sink.

MELTING POINT — The temperature at which a substance melts.

EVAPORATION RATE — The rate at which a substance will vaporize, compared to the rate of vaporization of a known substance such as butyl acetate.

SOLUBILITY IN WATER — The amount of a substance that can be dissolved in a given volume of water, usually expressed as milligrams per liter (mg/l).

APPEARANCE AND ODOR — The appearance and/or odor of the substance.

Section IV — Fire and Explosion Hazard Data

FLASH POINT — The lowest temperature at which a liquid will ignite in the presence of a flame, but will not continue to burn. Usually expressed in degrees Fahrenheit.

☑ **NOTE:** May also indicate the method of determining the flash point, since different methods yield different figures.

FLAMMABLE (EXPLOSIVE) LIMITS — The range over which a vapor mixed with air will flash or explode in the presence of an ignition source.

LEL AND UEL — The lower explosive limit and upper explosive limit.

EXTINGUISHING MEDIA — Substances used to control the hazardous material in case of fire (such as water, sand, fog, foam, dry chemical, etc.).

SPECIAL FIRE FIGHTING PROCEDURES — The "substance-specific" procedures to follow in case of fire.

UNUSUAL FIRE/EXPLOSION HAZARDS — Any fire hazards from burning or overheating the hazardous substance, such as chemical reactions, changes in composition, or other hazards in extinguishing the fire.

Section V — Reactivity Data

STABILITY — Indicates whether a substance is stable or unstable under normal conditions, including any conditions to avoid.

INCOMPATIBILITY — Any materials that should not be in contact with the hazardous substance.

HAZARDOUS DECOMPOSITION/BYPRODUCTS — Any hazardous substances produced by a hazardous material after burning, reacting with other substances, or other processes.

HAZARDOUS POLYMERIZATION — The change in energy level when two or more molecules of a substance combine to form a repeating structural unit. Includes any conditions to avoid.

Section VI — Health Hazard Data

ROUTE(S) OF ENTRY — Whether the substance can be (1) inhaled, (2) absorbed through the skin, or (3) ingested.

HEALTH HAZARDS — Any acute (short-term) or chronic (long-term) health hazards associated with the substance.

CARCINOGENICITY — Whether the substance may cause cancer, based on ratings such as NTP, IARC Monographs, or OSHA regulations.

SIGNS/SYMPTOMS OF EXPOSURE — The most common signs or symptoms of overexposure to the hazardous substance. Includes signs and symptoms from both short-term (acute) and long-term (chronic) exposure.

EMERGENCY/FIRST AID PROCEDURES — The "substance-specific" emergency and first aid procedures for treating cases of overexposure.

MEDICAL CONDITIONS — Any medical conditions that may be aggravated or worsened due to overexposure to the hazardous substance.

Section VII — Precautions for Safe Handling and Use

SPILL/RELEASE PROCEDURES — Methods for controlling or cleaning up spills and leaks (releases), including the necessary equipment and any precautions.

WASTE DISPOSAL METHOD — The permissible and prohibited method(s) for disposing of hazardous wastes.

HANDLING/STORING PRECAUTIONS — Any special handling and/or storing precautions.

OTHER PRECAUTIONS — Any other precautions to be taken.

Section VIII — Control Measures

RESPIRATORY PROTECTION — The types of required breathing protection when working with the hazardous substance.

VENTILATION — The types of required ventilation around the hazardous substance, such as local exhaust, mechanical, special, or other forms of ventilation.

PROTECTIVE GLOVES — The types of required glove protection when working with the hazardous substance.

EYE PROTECTION — The types of required eye protection when working with the hazardous substance.

WORK/HYGIENIC PRACTICES — The proper work and hygienic practices to follow when working with the hazardous substance.

OTHER — Any other kinds of protective clothing or equipment necessary.

FIGURE 3

Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910. 1200. Standard must be consulted for specific requirements.

U.S. Department of Labor
Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

IDENTITY *(As Used on Label and List)*	*Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.*

Section I

Manufacturer's Name	Emergency Telephone Number
Address *(Number, Street, City, State, and ZIP Code)*	Telephone Number for Information
	Date Prepared
	Signature of Preparer *(optional)*

Section II – Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	%*(optional)*

Section III – Physical/Chemical Characteristics

Boiling Point		Specific Gravity (H_2O = 1)	
Vapor Pressure (mm Hg.)		Melting Point	
Vapor Density (AIR = 1)		Evaporation Rate (Butyl Acetate = 1)	

Solubility in Water

Appearance and Odor

Section IV – Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL

Extinguishing Media

Special Fire Fighting Procedures

Unusual Fire and Explosion Hazards

(Reproduce locally)

OSHA 174, Sept. 1985

Section V – Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable		

Incompatibility *(Materials to Avoid)*

Hazardous Decomposition or Byproducts

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur		

Section VI – Health Hazard Data

Route(s) of Entry: Inhalation? Skin? Ingestion?

Health Hazards *(Acute and Chronic)*

Carcinogenicity: NTP? IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure

Medical Conditions
Generally Aggravated by Exposure

Emergency and First Aid Procedures

Section VII – Precautions for Safe Handling and Use

Steps to Be Taken in Case Material Is Released or Spilled

Waste Disposal Method

Precautions to Be Taken in Handling and Storing

Other Precautions

Section VIII – Control Measures

Respiratory Protection *(Specify Type)*

Ventilation	Local Exhaust	Special
	Mechanical *(General)*	Other

Protective Gloves | Eye Protection

Other Protective Clothing or Equipment

Work/Hygienic Practices

OBJECTIVE 8

List sources of MSDSs.

Employers are responsible for maintaining a Material Safety Data Sheet for each hazardous substance on their Chemical Information List.

Where do MSDSs come from? Employers must either:

1. OBTAIN the MSDS for each hazardous substance from the manufacturer, distributor, or service contractor. These parties MUST provide employers with the appropriate MSDSs upon request. The purchaser/employer can require that the MSDSs be supplied:

   a. when reviewing a bid for a product or service

   b. when purchasing a hazardous substance

   c. whenever the composition of the hazardous substance changes

   OR

2. DEVELOP their own MSDS for each hazardous substance on their CILs. If employers develop their own MSDS, they should follow these guidelines:

   a. Make the MSDS easy to read.

   b. Write all information in English.

   c. Leave NO SECTIONS BLANK. Indicate in some way that the information does not apply.

   d. Highlight critical information.

   e. Use more than one (1) page if necessary.

☑ **NOTE:** Use the OSHA Form 20 MSDS or an equivalent if possible. When properly filled out, this form of MSDS can assure proof of compliance with the regulations for MSDSs in the *Oklahoma Hazard Communication Standard.*

Employer-developed MSDSs have certain advantages. Employers can (1) reduce the amount of a chemical used at the facility by highlighting substitutes for that chemical on the MSDS, (2) show important information with an easy-to-read MSDS, and (3) highlight information about a substance that is especially valuable to the facility.

⚠ **CAUTION:** MSDSs WITH INCORRECT INFORMATION CAN LEAD TO IMPROPER USE. Obtain MSDSs only from the chemical manufacturer, distributor, or service contractors.

DO NOT ACCEPT an MSDS from a sales representative or others — they may not provide the legitimate MSDS for a particular substance or chemical. Send a written request if necessary. Record your receipt of all MSDSs, and document your attempts to obtain them. Your Purchasing Department, for example, could handle the task of acquiring MSDSs. Do NOT use a substance or chemical until you have the appropriate Material Safety Data Sheet and have trained your employees to work with the substance.

The *Federal Standard* (29 CFR 1910.1200) requires inclusion of an MSDS with the original shipment AND whenever a change is made to the MSDS. The *Oklahoma Standard* requires that an MSDS be provided upon request OR when specified by the purchaser. Federal law still requires inclusion of an MSDS with the original shipment and an updated version when the MSDS changes. BOTH STANDARDS require the purchaser to secure Material Safety Data Sheets for each hazardous substance in the workplace or work area.

OBJECTIVE 9

List the three (3) categories of information to record on the Oklahoma 200 Log and Summary.

The Oklahoma 200 Log and Summary is not a part of the *Oklahoma Hazard Communication Standard*. However, the Department of Labor requires employers to complete and post this form yearly, and it can play a special role in a total hazard communication program. The 200 Log and Summary, with the other components of a recordkeeping and inventory control system, can help employers monitor the hazardous substances present at their workplace. Specifically, it can help employers keep track of the *effects* of those substances on employees. (See Figure 4.)

The Department of Labor requires employers to record information about

1. Every occupational DEATH,

   ☛ **NOTE:** Also required to be included on an Accidental Death Form.

2. Every nonfatal occupational ILLNESS, AND

3. Those nonfatal occupational INJURIES that involve one or more of the following: loss of consciousness, restriction of work or motion, transfer to another job, or medical treatment other than first aid.

   ☛ **NOTE:** You must also report when you have no incidents in each of these areas, to assist the Department of Labor in determining the statewide incident rate.

Employers can use the Oklahoma 200 Log and Summary to measure the success and effectiveness of their hazard communication program. In addition to the information listed, employers can also record those cases where hazardous materials are involved in injuries and illnesses, then take the necessary steps to reduce or eliminate the existing hazards. In other words, Log 200 can serve as an indicator of whether a hazardous material poses too many risks for employees. If a given hazardous substance appears on the yearly Oklahoma 200 Log and Summary, investigate the circumstances of the injury or illness, determine whether the employee or the hazardous substance is at fault, and take the required corrective measures. *Remember, try to reduce the necessary risks associated with hazardous substances, and eliminate all unnecessary risks.* (See Figure 5.)

OBJECTIVE 10

Identify requirements for using the Oklahoma 200 Log and Summary.

Employers must

1. Complete the 200 Log annually.

2. Post a section of the 200 Log where employees can read it.

3. Keep a copy for five years.

☑ **NOTE:** The 200 Log is a long-term element in an inventory control and recordkeeping system for hazard communication. It is beyond the scope of this unit to include the guidelines for filling out the 200 Log. The easy-to-follow instructions are on the Log itself, and employers can obtain the Log and an instruction booklet called "Public Sector Recordkeeping Guidelines for Occupational Injuries and Illnesses" from the Department of Labor.

FIGURE 4

Log and Summary of Occupational Injuries and Illnesses

Oklahoma Department of Labor
Statistical Research & Analysis Division
(405) 528-1500

For Calendar Year 19____ Page ____ of ____

NOTE: Failure to maintain can result in criminal sanctions under the Oklahoma Occupational Health and Safety Standards Act.

RECORDABLE CASES: You are required to record information about every occupational death, every nonfatal occupational illness, and those nonfatal occupational injuries which involve one or more of the following: loss of consciousness, restriction of work or motion, transfer to another job, or medical treatment (other than first aid). (See instructions on the other side of form.)

Case or File Number	Date of Injury or Onset of Illness	Employee's Name	Occupation	Department	Description of Injury or Illness
Enter a number to allow association of this case with employee's medical records if necessary. (a)	(b)	Enter first name or initial, middle initial, last name. (c)	Enter regular job title, not activity employee was performing when injured or at onset of illness. In the absence of a formal title, enter a brief description of the employee's duties. (d)	Enter department in which the employee is regularly employed or a description of normal workplace to which employee is assigned (even though temporarily working in another department at the time of injury or illness). (e)	Enter a brief description of the injury or illness and indicate the part or parts of body affected. Typical entries for this column might be: Amputation of 1st finger, right forefinger; Strain of lower back; Contact dermatitis on both hands; Carbon monoxide poisoning. (f)
					PREVIOUS PAGE TOTALS →
					TOTALS (Instructions on other side of form.) →

OSHA No. 200

FOLD LINE →

Company Name

Establishment Name

Establishment Address

Extent of and Outcome of Injury

Type, Extent of, and Outcome of Illness

Fatalities	Nonfatal Injuries	Type of Illness	Fatalities	Nonfatal Illnesses
Injury Related	Injuries with Lost Workdays	Injuries without Lost Workdays	CHECK Only One Column for Each Illness (See other side of form for instructions)	Illness Related	Illnesses with Lost Workdays	Illnesses without Lost Workdays
Enter date of death. (g)	Enter a CHECK if injury involved days away from work, or days of restricted work activity, or both. (h)	Enter a CHECK if injury involved days away from work. (i)	Enter days away from work if any. (j)	Enter number of DAYS of restricted work activity, if any. (k)	Enter a CHECK if case involves 1 or 2 but not more than 1 or 2 additional entries. (l)	Disorders associated with Repeated Trauma (m)	Skin Disorders (n)	Respiratory Conditions due to Toxic Agents (o)	Poisonings (p)	Hearing Conditions due to Noise (q)	All Other Occupational Illnesses (r)	Enter number of DAYS away from work. (s)	Enter number of DAYS of restricted work activity. (t)	Enter a CHECK if illness-related case involves days away from work, or days of restricted work activity, or both. (u)	Enter number of DAYS away from work. (v)	Enter number of DAYS of restricted work activity. (w)	Enter a CHECK if case involves 1 or 2 but not more than 1 or 2 additional entries. (x)
Workplace (f)						(m)	(n)	(o)	(p)	(q)	(r)						

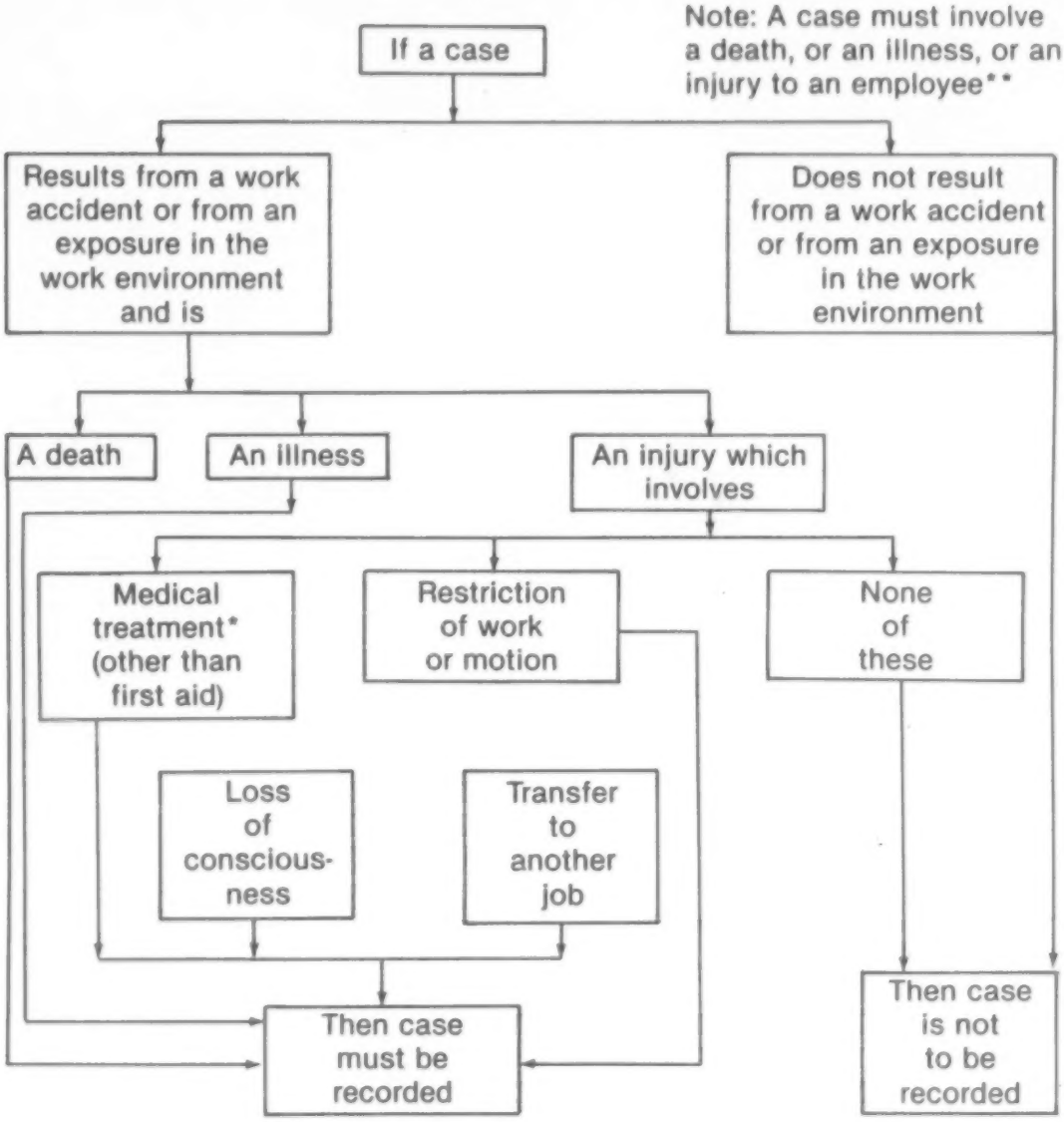
Certification of Annual Summary Totals by _____ Title _____ Date _____

PARTICIPANT WORKBOOK - Hazard Communication Training
INFORMATION SHEET - CIMC - 2 - 21

BEST COPY AVAILABLE

FIGURE 5

GUIDE TO RECORDABILITY OF CASES


If a case
Note: A case must involve a death, or an illness, or an injury to an employee**
Results from a work accident or from an exposure in the work environment and is
Does not result from a work accident or from an exposure in the work environment
A death
An illness
An injury which involves
Medical treatment* (other than first aid)
Restriction of work or motion
None of these
Loss of consciousness
Transfer to another job
Then case must be recorded
Then case is not to be recorded

*Involving more than a single visit to a doctor, or when the employee receives a prescription as treatment.

**During the employee's "work time," the time for which the employee is paid.

Source: US Department of Labor, Statistical Research and Analysis Division, Bureau of Labor Statistics.

OBJECTIVE 11

Explain when to label a hazardous substance.

Labels must be applied in all cases before the substance is used in the employer's workplace. As a general rule, if you have a hazardous substance where your work, label it. Manufacturers, distributors, and importers must label all products leaving their workplace that contain hazardous substances. In the case of service contractors, they must label all hazardous materials that they bring to an employer's facility.

⚠ **CAUTION:** REMOVING LABELS ON MSDSs CAN CAUSE IMPROPER USE. Do not remove or alter the labels on incoming containers of hazardous substances, such as those from manufacturers or distributors, unless you immediately replace the original labels with your own hazard warning labels.

OBJECTIVE 12

Identify substances and containers to label.

- Employers must label hazardous substances that are either in-house or shipped.
- Manufacturers, distributors, and importers must label all products leaving their workplace that contain hazardous substances.

IN ADDITION, EMPLOYERS MUST LABEL

- Every container of hazardous substances in the workplace.
- Pipelines at the valve or valves where a hazardous substance enters the facility's pipeline system.
- Normally operated valves, outlets, vents, and drains.
- Sample connections designed to release a substance from the pipeline.

☑ **NOTE:** These regulations do not apply to portable containers used to transfer a hazardous substance from labeled containers, and intended for immediate use by the employee performing the transfer. However, employers should protect employees and others by making hazard warning supplies available. These materials include factory labels. Employers should help their employees keep track of the hazardous substances in their work areas.

OBJECTIVE 13

State the information required on labels.

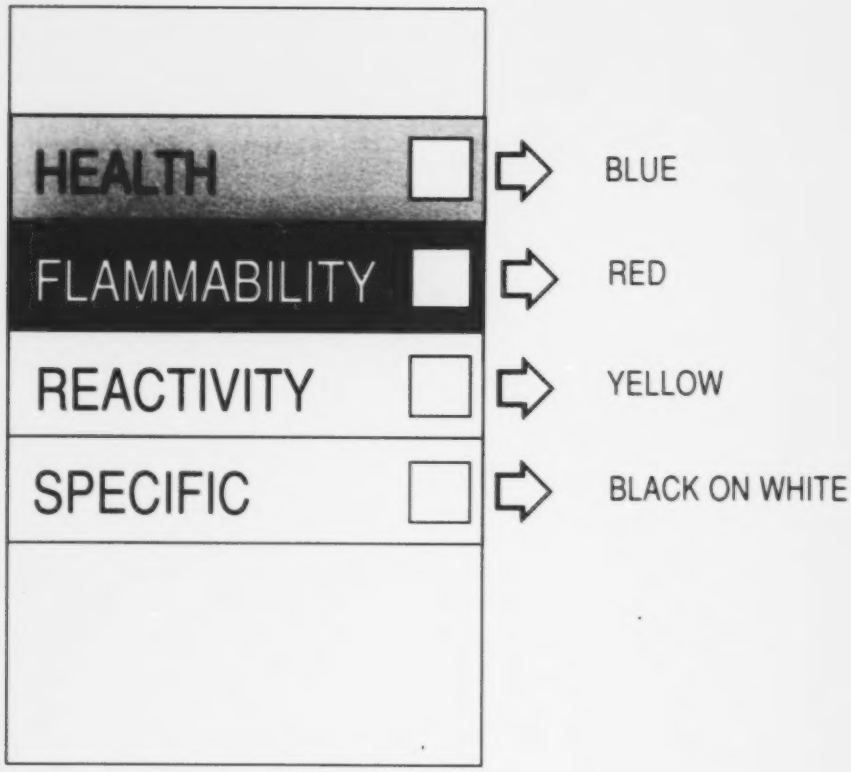
- To comply with the labeling requirement of the *Oklahoma Hazard Communication Standard*, labels MUST include the chemical name of the substance — as used on the CILs and MSDSs — and the CAS Number or the trade secret registry number.

- In the case of mixtures, labels must include the chemical names and CAS or trade secret registry numbers of the five (5) most predominant substances in the mixture.

☑ **NOTE:** These standards for labels DO NOT APPLY to any substance that constitutes less than one percent (1%) of a mixture unless the substance is present at the workplace in a total amount of five-hundred (500) pounds or more.

One example of an effective label is the NFPA 704 System (see Figure 6). This label is used to inform firefighters and others about the type and severity of a particular hazard during a fire emergency. You can use this system to inform your employees about the hazards of a chemical at your facility. Simply assign the appropriate values from (0) to (4) for each of the hazard divisions on the sign, indicating the severity of each hazard for the particular chemical. (These values may already be on the chemical's MSDS, or you may have to determine the correct value.) Ranking degrees of hazard is based on relative, not absolute values. How you store and use the substance at your facility will influence the number values that you assign for each hazard. See Unit 3 for a detailed explanation of the NFPA 704 System.

FIGURE 6


HEALTH
FLAMMABILITY
REACTIVITY
SPECIFIC
BLUE
RED
YELLOW
BLACK ON WHITE

4
3
3
W

OBJECTIVE 14 **List guidelines for labeling.**

- Include all of the required information.
- Name specific hazard warnings. Be explicit, such as "causes lung damage."
- List the names and addresses of responsible parties.
- Communicate with words, pictures, or symbols on labels.
- Include information only if it does not conflict with Department of Transportation regulations for labeling.
- Replace illegible labels.
- Re-label containers filled with substances other than those listed on the original container label.

OBJECTIVE 15 **State the two (2) areas covered by asbestos labeling.**

Asbestos is a very hazardous material that demands special care in labeling. Asbestos labeling covers these two (2) areas:

1. EQUIPMENT with asbestos-containing material must have the following label:

DANGER Contains Asbestos Fibers Avoid Creating Dust Cancer and Lung Disease Hazard

2. FACILITIES with asbestos-containing material used as acoustical materials on ceilings or walls must have the following notice posted in a visible place:

NOTICE TO EMPLOYEE This facility has been inspected for the presence of asbestos-containing material. Asbestos-containing material is present in this facility. Asbestos-containing material may cause health problems.

Schools inspected according to the EPA Asbestos Inspection Program and complying with its notification requirements are EXEMPT from the standards under (2) above.

⚠ **WARNING:** ASBESTOS-CONTAINING MATERIAL IS A HEALTH HAZARD. Do not handle asbestos unless you are certified to do so.

If you are not certified to handle asbestos, you must follow these recommendations to avoid being in violation of the law:

1. Contact the Department of Health for an inspection and/or consultation.

2. Do not handle or move the asbestos or asbestos-containing material.

3. Do not cover the asbestos by painting, dry walling, or any other method.

Remember, *do not handle asbestos unless you are certified to do so.* Do not accept any unnecessary risks when dealing with this very hazardous substance.

FIGURE 7

SAMPLE HAZARD WARNING LABELS

OBJECTIVE 16 **Identify requirements for cautionary labels.**

If a workplace has pipes, boilers, storage vessels, structural members or equipment with insulating material that might be removed, penetrated, damaged or otherwise disturbed by repair, remodeling, renovation, maintenance or other activity, employers must label these items with CAUTIONARY LABELS. Employers should:

1. Use caution labels with lettering of such size and contrast as to be readily visible and legible.

2. Post at least one caution label in EACH applicable room or work area.

3. Post extra labels as needed.

See Figure 7 for examples of cautionary labels.

OBJECTIVE 17 **Explain the importance of trade secrets in hazard communication.**

Trade secrets are important in hazard communication because they may include hazardous materials. As noted in Unit 1, the trade secret status should protect the product but NOT the hazards. In a hazard communication program, trade secrets involve special requirements for withholding data about the "secret" substance, as well as MSDS information.

OBJECTIVE 18 **Name the individuals who must be told the chemical name of a trade secret.**

Employers, chemical manufacturers, and distributors must provide to the purchaser of a hazardous substance labeled as a "trade secret" the generic chemical classification of the substance, to allow for an independent toxicological evaluation of the substance by a health professional. You can withhold the exact chemical name. However, you must reveal the chemical name to:

1. A doctor who states in writing that a patient's health problems may result from occupational exposure to the trade secret substance.

2. A doctor who requests the information in an emergency.

3. A health professional, including industrial hygienists, toxicologists, or doctors who state in writing that the information is needed to evaluate potential health problems from actual exposure.

OBJECTIVE 19

Select from a list information the MSDS for a trade secret must indicate.

- The category of information being withheld
- The name of the manufacturer
- An emergency telephone number where any withheld information could be obtained

☑ **NOTE:** Responsible employers dealing with hazardous substances should be sure that they have access to all of the necessary data about any trade secrets that may be included on their CILs, and provide such information as needed to others who must know it.

OBJECTIVE 20

Identify the *Standard* requirements for updating CILs and MSDSs.

In order for employers to ensure that their hazard communication program stays effective and useful, they should periodically review and update the contents of the program.

The *Oklahoma Hazard Communication Standard* (380:45-3-4) has guidelines for updating two (2) components of an inventory control and recordkeeping system: CILs and MSDSs. The *Standard* requires employers to:

1. Update their Workplace CIL, when a new hazardous substance is introduced into the workplace, within thirty (30) days.
2. Re-alphabetize their CILs every year.
3. Revise MSDSs as needed, but at least once per year.

If an employer becomes aware of any significant information regarding the health hazard of a substance — information that is not on the substance's MSDS — the employer must revise the MSDS within thirty (30) days. If the substance is a trade secret, you must (1) notify the manufacturer in writing, and (2) send a copy of the notification to the Oklahoma Department of Labor.

☑ **NOTE:** The *Federal Standard* (29 CFR 1910.1200) allows three months for adding changes to an MSDS. The *Oklahoma Standard* allows thirty days. For information regarding the Work Area CIL refer to Subchapter 5. Fire Safety of the *Standard*.

OBJECTIVE 21

State the two (2) kinds of required access to written records and the conditions for each.

All of the information that an employer has gathered about the hazardous materials at the workplace will not help the employer if it is not available to the right persons at the right times. Imagine the consequences for an employee or firefighter who could not read the needed MSDS in an emergency, because the forms were under lock and key in a single office. Keep the process of hazard communication going. Make data available and promote information-sharing.

Other objectives in this unit describe the kinds of access required for certain elements in an inventory control and recordkeeping system. The *Oklahoma Hazard Communication Standard* also gives some basic guidelines regarding the availability of written records. Employers MUST provide:

- ACCESS to any CIL and MSDS to any affected employee or employee representative, upon request. Employers must provide access as soon as possible in a reasonable time, place, and manner, but no later than one (1) working day after the request;

  AND

- A COPY of any CIL and MSDS, or the mechanical means to copy, to any affected employee or employee representative within fifteen (15) days of the request.

☑ **NOTE:** The *Federal Standard* (29 CFR 1910.1200) specifically states that copies of Material Safety Data Sheets for each hazardous chemical in the workplace be maintained and made readily available to employees WHILE the employees are in the specific work area. The *Oklahoma Standard* requires that a Chemical Information List and copies of all MSDSs be maintained and made readily available to ALL AFFECTED EMPLOYEES.

The *Oklahoma Standard* is also more specific than the *Federal Standard* regarding the type of access to written records and the time required for providing access.

In addition, any manufacturer, distributor, or importer must provide the appropriate MSDSs to the purchasers of a hazardous substance.

OBJECTIVE 22

List guidelines for creating and maintaining an inventory control and recordkeeping system.

- Use the filing and storage system that promotes accessibility for written records.

  EXAMPLE: You can file MSDSs in three-ring binders OR on computer disks.

- Review your inventory control and recordkeeping system every year.

- Update CILs and MSDSs as needed or required.

  ☑ **NOTE:** Employers should also update CILs when a hazardous substance is eliminated from the workplace.

- Distribute any new or revised MSDSs as they become available.

- Revise your system of labels as needed.

- Report new information or procedures to employees and others affected by the change(s).

- Keep copies of CILs and MSDSs in a central location and near the work areas where hazardous substances are present.

- Provide continuous access to written records for employees and for service contractors and their employees.

- Choose someone to handle all requests for written records on a daily basis and in emergencies.

- Establish a procedure for both written and verbal requests for access to records.

- Record employees' requests for access to written records, using "check-out" and "sign-in" sheets.

- Promote the availability of records to employees.

Name _____ Score _____

OBJECTIVE 23

Label hazardous substances using the NFPA 704 System labels.

INSTRUCTIONS

The four exercises below will help you practice labeling hazardous substances at your facility, using the NFPA 704 System (diamond version). The information given in each numbered exercise should be available on any MSDS. After reading each item, decide which three numbers you would use to label the substance.

EXAMPLE: Hazardous — Use breathing apparatus. Ignites when moderately heated. Unstable if heated — Use normal precautions.

ANSWER: Health — 2
Flammability — 2
Reactivity — 1

1. Hazardous — Use breathing apparatus. Must be preheated to burn. Violent chemical change possible — Use hose streams from distance.

2. Slightly hazardous. Ignites when moderately heated. Unstable if heated — Use normal precautions.

3. Extremely dangerous — Use full protective clothing. Extremely flammable. Strong shock or heat may detonate — Use monitors from behind explosion-resistant barriers.

4. Slightly hazardous. Will not burn. Normally stable.

REVIEW SHEET

INVENTORY CONTROL AND RECORDKEEPING 2

Name _____ Score _____

OBJECTIVE 1

Distinguish among elements in a system for inventory control and recordkeeping. Place an "X" by the correct elements.

____ 1. Material Safety Data Sheet (MSDS)

____ 2. Hazardous Waste Manifest

____ 3. Oklahoma 200 Log and Summary

____ 4. Chemical Information List (CIL)

____ 5. Laboratory Reports

____ 6. Employee Injury Statements

____ 7. Employee Exposure and Fatality Report

____ 8. Oklahoma Occupational Illness/Injury Form 10B

____ 9. Labels

____ 10. Hazardous Waste Evaluation List

OBJECTIVE 2

Describe the two (2) types of CILs. Write the two types of CILs and describe them in the space provided.

1. _____

_____

_____

2. _____

_____

_____

OBJECTIVE 3

Discuss filing a Workplace CIL. Discuss filing a Workplace CIL in the blanks provided.

_____

_____

_____

_____

_____

OBJECTIVE 4

Answer questions about the purposes of the Employee Exposure Report. Circle the correct answers.

1. Employers should use the Employee Exposure Report to record cases of exposure:

   a. occurring during their current employment
   b. occurring during an employees' previous employment
   c. occurring to anyone in their immediate family
   d. both a and b
   e. all of the above

2. If an employer learns that an employee has received a potentially hazardous exposure, what actions must the employer take?

   a. notify the plant foreman
   b. notify the employee immediately
   c. take any necessary action for medical evaluation, monitoring, or treatment
   d. both b and c
   e. all of the above

3. In addition to the Employee Exposure Report, employers must also file a:

   a. Non-injury Exposure Report for incidents that do not require first aid or hospitalization
   b. First Aid Incident Report
   c. Fatality/Multiple Hospitalization Report for any job-related fatality or multiple hospitalization incident
   d. both a and c
   e. none of the above

OBJECTIVE 5

Identify ways of filing the Employee Exposure Report. Circle the correct answer.

Options for filing the Employee Exposure Report, according to the Standard, include

a. Keeping the report for at least forty (40) years
b. Providing the report to employees on a regular periodic basic
c. Providing the report to employees upon termination of employment
d. All of the above

OBJECTIVE 6

List the information required on each MSDS. List five items of information that each MSDS must contain.

1. _____

2. _____

3. _____

4. _____

5. _____

OBJECTIVE 7

Interpret the MSDS. Answer the questions that follow.

1. What two manufacturer's telephone numbers should be given on each MSDS?

   _____

2. What names of hazardous ingredients are provided in the Hazardous Ingredients/Identity Information section?

   _____

3. What does TLV mean?

   _____

4. Which Physical/Chemical Characteristics are identified in Section III?

   _____ _____

   _____ _____

   _____ _____

   _____ _____

5. "The lowest temperature at which a liquid will ignite in the presence of a flame, but will not continue to burn" defines the _____.

6. "Flammable (Explosive) Limits is the _____ over which a vapor mixed with _____ will flash or explode in the presence of an ignition source."

7. What are three possible routes of entry identified on an MSDS?

   _____

8. What are two types of health hazards given in the Health Hazard Data section?

   _____

9. What does "Incompatibility" refer to?

   _____

10. What is described in Section VII—Precautions for Safe Handling and Use?

_____ _____

_____ _____

OBJECTIVE 8

List sources of MSDSs. Write the two ways that an employer can acquire MSDSs.

1. _____

_____

2. _____

_____

OBJECTIVE 9

List the three (3) categories of information to record on the Oklahoma 200 Log and Summary. Write the information that the Department of Labor requires employers to record on the 200 Log.

1. _____
2. _____
3. _____

OBJECTIVE 10

Identify requirements for using the Oklahoma 200 Log and Summary. Circle the correct answer.

The requirements for 200 Log include:

a. Keeping a copy of the log for 40 years
b. Posting a section of the log where employees can read it
c. Completing the 200 Log monthly
d. Completing the 200 Log every 5 years

OBJECTIVE 11

Explain when to label a hazardous substance. Explain when to label a hazardous substance in the space provided.

_____

_____

_____

_____

OBJECTIVE 12

Identify substances and containers to label. Circle the correct answer.

Employers are NOT required to label which of the following?

a. Pipelines at the valve or valves where a hazardous substance enters the facility's pipeline system
b. Normally operated valves, outlets, vents, and drains
c. Portable containers used to transfer a hazardous substance from labeled containers, and intended for immediate use by the employee performing the transfer
d. Sample connections designed to release a substance from the pipeline

OBJECTIVE 13

State the information required on labels. Write the required information in the space provided.

_____

_____

_____

_____

_____

OBJECTIVE 14

List guidelines for labeling. Write three guidelines in the space provided.

1. _____

_____

2. _____

_____

3. _____

_____

OBJECTIVE 15

State the two (2) areas covered by asbestos labeling. Write the two areas in the space provided.

1. _____

_____

2. _____

_____

OBJECTIVE 16

Identify requirements for cautionary labels. Circle the correct answer.

When using cautionary labels, employers should

a. Use caution labels with lettering of such size and contrast as to be readily visible and legible
b. Post at least one caution label in EACH applicable room or work area
c. Post extra labels as needed
d. All of the above

OBJECTIVE 17

Explain the importance of trade secrets in hazard communication. Explain the importance of trade secrets in hazard communication in the space provided.

_____

_____

_____

_____

OBJECTIVE 18

Name the individuals who must be told the chemical name of a trade secret. Write the individuals in the space provided.

_____

_____

_____

_____

_____

_____

OBJECTIVE 19

Select from a list information the MSDS for a trade secret must indicate. Place an "X" in front of the correct answer.

____ 1. The name of the manufacturer

____ 2. Why the information is being withheld

____ 3. The category of information being withheld

____ 4. Trade secret patent number

____ 5. An emergency telephone number where any withheld information could be obtained

OBJECTIVE 20

Identify the *Standard* requirements for updating CILs and MSDSs. Circle the correct answer.

The Standard requires employers to

a. Update the Workplace CIL, when a new hazardous substance is introduced into the workplace, within thirty (30) days
b. Re-alphabetize CILs every year
c. Review MSDSs as needed, but at least once per year
d. All of the above
e. None of the above

OBJECTIVE 21

State the two (2) kinds of required access to written records and the conditions for each. Write the two items that employers must provide regarding the availability of written records.

1. _____

_____

2. _____

_____

OBJECTIVE 22

List guidelines for an inventory control and recordkeeping system. Write five guidelines in the space provided.

1. _____

_____

2. _____

_____

3. _____

_____

4. _____

_____

5. _____

_____

OBJECTIVE SHEET

FIRE SAFETY 3

INTRODUCTION

Although most facilities probably already comply with various fire codes and guidelines, they must also meet the standards for adequate fire protection concerning the hazardous substances at job sites. These substances can be stationary and present only at the facility, or they can be mobile, such as welding units where hazardous materials can be transported from one location to another.

Many hazardous substances pose special fire hazards and demand special care. Communication is vital. Employers must communicate with firefighting authorities concerning the hazardous materials that are present at their workplace. The *Oklahoma Hazard Communication Standard* stresses the importance of communication between all parties involved with hazardous substances, in order to reduce the special fire hazards associated with these materials.

UNIT OBJECTIVE

After completing this unit, you will show the following competencies by completing the activity on the Worksheet and by completing the Review Sheet.

SPECIFIC OBJECTIVES

1. List the groups affected by the guidelines for fire safety.
2. Answer questions about the kind of fire safety information a proprietor must submit.
3. Identify kinds of research laboratories.
4. List the three groups who must receive a proprietor's fire safety information from a fire department.
5. Discuss the confidentiality of information regarding fire safety.
6. Answer questions about classifications of a "significant amount."
7. Identify requirements for size, category, and location of fire hazard signs.
8. Identify conditions for exception to sign-posting requirements.

9. List guidelines for creating a fire safety communication system.

10. Complete a fire safety checklist. (Worksheet 1)

INFORMATION SHEET	*FIRE SAFETY*	3

OBJECTIVE 1

List the groups affected by the guidelines for fire safety.

- Proprietors
- Research laboratories
- Fire departments

OBJECTIVE 2

Answer questions about the kind of fire safety information a proprietor must submit.

☑ **NOTE:** The Work Area CIL is addressed under Subchapter 5. Fire Safety of the *Standard*.

Proprietors must submit the following fire safety information:

- A list of work areas accurately identified by name and location where hazardous substances are consistently generated by, used by, stored at, or transported from a facility. The list must include the chemical and common name of each substance.
- Any additional information about the location of hazardous substances, as requested, needed to protect employees' health and safety.

☑ **NOTE:** As the proprietor of a research laboratory, you must communicate with your local firefighting authorities and create a communications and information exchange system to help fire departments in preparing to respond to any emergencies at your research laboratory.

OBJECTIVE 3

Identify kinds of research laboratories.

Research laboratories include testing facilities and demonstration facilities such as those found in

- Water or sewage treatment plants
- Research and development laboratories
- School laboratories
- College and university laboratories
- ANY laboratory operation that does not primarily generate a "production product" in which hazardous substances are present

OBJECTIVE 4

List the three groups who must receive a proprietor's fire safety information from a fire department.

The administrator or director of a fire department *cannot* reveal the proprietor's fire safety information to the public. However, the administrator or director of a fire department *is required* to supply the fire safety information obtained from both proprietors and research laboratories to the following:

- Fire suppression companies mainly responsible for the particular employer's facility
- Fire prevention and inspection divisions within the jurisdiction that includes the employer's facility
- Any fire department employee or a designated employee representative, upon request

☑ **NOTE:** The administrator or director of a fire department must provide access to the information as soon as possible within a reasonable time, place, and manner, BUT no later than one (1) working day after the request. The administrator or director of a fire department must provide a copy (if requested) or the mechanical means to copy within fifteen (15) days of the request.

OBJECTIVE 5

Discuss the confidentiality of information regarding fire safety.

- Fire departments may not make available to the public information regarding the location of hazardous substances at an employer's facility.

- Any fire department may request further information concerning the location of hazardous substances that are reasonably required to protect the health and safety of employees.

- Employers shall provide the fire deparment with the additional information upon request.

☑ **NOTE:** The *Oklahoma Standard* (380:45-5-1 through 45-5-6) actually affects ALL employers in Oklahoma. The *Oklahoma Standard* (380:45-5-1) is designed to provide fire service personnel with information necessary for fire departments to develop their own hazard communication training programs. ALL EMPLOYERS must provide the necessary information when a fire department requests it.

OBJECTIVE 6

Answer questions about classifications of a "significant amount."

WORDS YOU SHOULD KNOW	
aggregate amount	any combination of hazardous material(s) as defined by 380:45
mixture	a combination of two or more hazardous substances if the combination does not occur in nature and is not, in whole or part, the result of a chemical reaction

In order to protect personnel from the special fire hazards of many hazardous substances, the employer first needs to define the fire hazards of those substances. The fire safety guidelines in this unit apply to substances present in a "significant amount." (See Figure 1.) Substances present in a significant amount include the following:

- ANY AMOUNT of a hazardous chemical classified by the Department of Transportation as a
  - Class A or B EXPLOSIVE
  - Class A or B POISON
  - FLAMMABLE SOLID with a "dangerous when wet" warning
  - Radioactive material requiring a warning placard from the Nuclear Reguiatory Commission
  - Any amount determined by an inspector to be hazardous
- AGGREGATE AMOUNTS of hazardous chemicals stored, placed, or used at the workplace that equal or exceed fifty-five (55) gallons of liquid or five-hundred (500) pounds of non-liquid, and where the number ratings from the NFPA 704 System are
  - HEALTH — greater than or equal to two (2)
  - FLAMMABILITY — greater than or equal to two (2)

- ☐ REACTIVITY — greater than or equal to one (1)

☑ **NOTE:** Consider the combined weight if the chemicals exist in both liquid and non-liquid form. In other words, combined weight = aggregate amount. If more restrictive regulations exist about defining fire hazards, those regulations will supersede the ones given in this unit.

FIGURE 1

DEFINING THE SIGNIFICANT AMOUNT OF A HAZARDOUS SUBSTANCE TWO WAYS

Any Amount

Class A or B Explosives	OR	Class A or B Poisons	OR	Flammable solids with a "dangerous when wet" warning	OR	Material requiring special NRC license

Aggregate Amounts

55 gallons or more of liquid forms	OR	500 pounds or more of non-liquid forms	OR	Combined weight of liquid and non-liquid forms	AND	NFPA number rating of (2) health, or (2) flammability, or (1) reactivity

OBJECTIVE 7

Identify requirements for size, category, and location of fire hazard signs.

For those hazardous substances that exist in a significant amount at a workplace, the employer must now identify the hazards of those materials for others by using the appropriate signs. Employers should make others aware of the fire hazards of hazardous substances which are present at the workplace.

Consistency leads to effective communication. The *Standard* provides guidelines for a system of signs in the three key areas of (1) size, (2) category, and (3) location.

- Signs must have at least 7.5 inches on each side, with four spaces of at least 3.75 inches on a side. Numbers and symbols within each of the four spaces must be at least 3.0 inches tall.

- Signs must meet the following requirements:

  - IDENTIFY the hazards of a chemical, using the following categories: health, flammability, reactivity, and specific hazards.

  - INDICATE the order of severity of a hazard, using fire divisions on a scale of (0) to (4) with (4) indicating a severe hazard and (0) indicating no specific hazard.

  - MEET requirements for color and order with a "spatial" system of diagrams. The color and order must be as follows:

    Health — Blue, left of diamond

    Flammability — Red, top of diamond

    Reactivity — Yellow, right of diamond

    Specific — Black on white, bottom of diamond

    ☑ **NOTE:** A "specific" hazard may indicate a substance or chemical's unusual reactivity with water. This information is very important to know during a fire emergency. The recommended signal to indicate this hazard is the letter W with a white line through the center. Other specific hazards could include radioactivity, proper fire extinguishing agents, protective equipment required in case of fire or other emergency, whether the chemical is an oxidizer, corrosive, acid, alkali, etc.

- If the facility has a floor space of 5,000 square feet or less, signs must be posted on the outside of the building, identifying the type of each hazardous substance inside that is present in a "significant amount."

  If the facility has a floor space of more than 5,000 square feet, signs must be posted on the outside of the building and at the places in the facility where each hazardous substance is permanently stored in significant amounts, identifying the type of hazardous chemical.

  - The significant amount test applies to each location inside the facility, if the facility has a floor space of more than 5,000 square feet.

  - Employers can use the NFPA 704 System to inform about the fire hazards in a given area. In some situations, such as in a building, room or other localized area, an employer may store a wide variety of hazardous substances, with varying degrees of hazards. In such cases, the hazard warning sign (NFPA 704 System) must indicate the most severe degree of hazard in each category — health, flammability, reactivity, specific — for the entire area or room, except when a high hazard rating would be misleading because of the presence of an insignificant quantity of the substance requiring the rating.

  - If the chemical is moved, the employer must (1) move the sign also, or (2) post an *extra sign* in the new location.

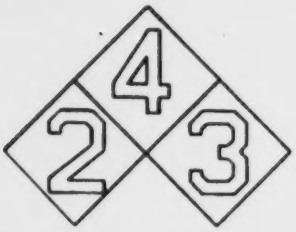
  - The requirement for sign locations does not apply to substances that are not present in a "significant amount" as previously defined.

- Employers can create their own system of signs or buy standardized signs from a supplier. The signs must follow the standards described in this section. **Be consistent.** (See Figure 2 for an example of a sign that meets the standards for category and severity of hazards.)

  See Appendix 3 for addresses of some sign suppliers.

FIGURE 2

NFPA 704 SYSTEM ARRANGEMENT VARIATIONS



For use where specified color background is used with numbers of contrasting colors

For use where a white background is needed

For use where a white background is used with painted numbers, or for use as a sign or placard

OBJECTIVE 8

Identify conditions for exception to sign-posting requirements.

Employers can be subject to less stringent sign posting requirements either by

1. Written agreement with the appropriate firefighting authorities, subject to the approval of the Commissioner of the Oklahoma Department of Labor, or

2. Written application to the Commissioner of the Oklahoma Department of Labor.

See Appendix 4 for specific information about applying for special sign-posting requirements.

OBJECTIVE 9

List guidelines for creating a fire safety communication system.

- COLLECT required fire safety information.
- ARRANGE fire safety information to meet specific needs.
- PROVIDE appropriate information to the appropriate firefighting personnel or others who need it.
- DISCUSS with firefighting personnel the *types* and *amounts* of hazardous substances at the facility, as well as any *unusual fire hazards.*
- DEFINE the fire hazards of substances present at the facility in "significant amounts."
- CREATE a system of signs.
- POST signs to make others aware of the fire hazards of the hazardous materials in the workplace.
- UPDATE the system for fire safety communication as needed and provide any new information to the proper authorities.

WORKSHEET 1 | ***FIRE SAFETY*** **3**

Name _____

OBJECTIVE 10 **Complete a fire safety checklist.**

INSTRUCTIONS Complete the checklist of fire safety questions.

	Yes	No
1. Portable fire extinguishers are provided where necessary.	____	____
2. Portable fire extinguishers are maintained in effective operating condition.	____	____
3. Portable fire extinguishers are located and mounted where conspicuous and readily accessible.	____	____
4. Portable fire extinguishers are visually inspected monthly.	____	____
5. Portable fire extinguishers are provided an annual maintenance check.	____	____
6. Portable fire extinguishers are provided with an approved static test within the time period required for the specific extinguisher type.	____	____
7. Records are maintained on regular inspections and service.	____	____
8. When fire extinguishers are provided for employee use in the workplace, the employees are provided with an educational program to familiarize them with the general principles of fire extinguisher use and the hazards involved with incipient stage fire fighting.	____	____

	Yes	No
9. If class "A" fire extinguishers are not provided, approved standpipe systems are substituted for emergency use by employees.	____	____
10. If standpipe systems are used instead of class "A" fire extinguishers, the standpipe system provides total coverage of the area to be protected.	____	____
11. When standpipe systems are used instead of class "A" fire extinguishers, employees will be provided with, at least, annual training in the use of standpipe systems.	____	____

REVIEW SHEET

FIRE SAFETY 3

OBJECTIVE 1

List the groups affected by the guidelines for fire safety. Write the three groups in the space provided.

1. _____
2. _____
3. _____

OBJECTIVE 2

Answer questions about the kind of fire safety information a proprietor must submit. Write the correct answers in the blanks.

1. The proprietor must submit a list of work areas accurately identified by _____ and _____ where hazardous substances are consistently generated by, used by, stored at, or transported from the facility.
2. The list must include the _____ and _____ name of each substance.
3. The proprietor must submit any _____ information about the location of hazardous substances, as requested, needed to protect employees' health and safety.

OBJECTIVE 3

Identify kinds of research laboratories. Circle the correct answer.

Research laboratories include testing facilities and demonstration facilities such as those found in

a. Water or sewage treatment plants
b. Research and development laboratories
c. School, college, and university laboratories
d. All of the above
e. None of the above

OBJECTIVE 4

List the three groups who must receive a proprietor's fire safety information from a fire department. Write the three groups in the space provided.

1. _____

_____

2. _____

_____

3. _____

_____

OBJECTIVE 5

Discuss the confidentiality of information regarding fire safety. Discuss the confidentiality in the blanks provided.

_____

_____

_____

_____

_____

_____

_____

OBJECTIVE 6

Answer questions about classifications of a "significant amount." Circle the correct answer.

Substances present in a significant amount include ANY AMOUNT of a hazardous chemical classified by the Department of Transportation as a

a. Flammable liquid
b. Chemical additive
c. Any amount of combustible solid
d. Class A or B POISON

OBJECTIVE 7

Identify requirements for size, category, and location of fire hazard signs. Circle the correct answer.

1. Signs must indicate the order of severity of a hazard, using fire divisions on a scale of (0) to (4) with (4) indicating

   a. No special hazard
   b. A severe hazard
   c. A reactivity hazard only
   d. A health hazard only

2. The blue section of your sign indicates which type of hazard?

   a. Health
   b. Flammability
   c. Reactivity
   d. Specific

3. When must you post signs on the OUTSIDE of the building only, identifying the type of each hazardous substance inside that is present in a "significant amount"?

   a. If your facility has a floor space of more than 5,000 square feet
   b. If your facility has a floor space of 5,000 square feet or less
   c. All of the time
   d. Never

OBJECTIVE 8

Identify conditions for exception to sign-posting requirements. Circle the correct answer.

Employers can be subject to less stringent sign posting requirements by

a. Written application to the Commissioner of the Oklahoma Department of Labor
b. Written agreement with the appropriate firefighting authorities, subject to the approval of the Commissioner of the Oklahoma Department of Labor
c. b only
d. a or b

OBJECTIVE 9

List guidelines for a fire safety communication system. List four guidelines in the space provided.

1. _____

_____

2. _____

_____

3. _____

_____

4. _____

_____

OBJECTIVE SHEET

NON-ROUTINE TASKS 4

INTRODUCTION

This short unit will introduce you to the concept of non-routine tasks and their importance in hazard communication. This unit also provides general guidelines for handling the hazardous materials that may be involved in any non-routine task.

UNIT OBJECTIVE

After completing this unit, you will show the following competencies by completing the activity on the Worksheet and by completing the Review Sheet.

SPECIFIC OBJECTIVES

1. Define a non-routine task in hazard communication.
2. Identify the importance of non-routine tasks in hazard communication.
3. List guidelines for handling non-routine tasks involving hazardous substances.
4. List non-routine tasks at your workplace. (Worksheet 1)

INFORMATION SHEET

NON-ROUTINE TASKS

4

OBJECTIVE 1

Define a non-routine task in hazard communication.

- Non-routine tasks are any special tasks or activities that an employer or employees complete that are not part of the daily routine or that arise due to special circumstances.

  EXAMPLE: An employee may have to temporarily perform somebody else's job, operate new equipment, follow new procedures, or complete a task that arises periodically but not regularly.

- A non-routine task can also be any task that must be performed in an emergency or during maintenance operations.

☑ **NOTE:** A list of all possible non-routine tasks would be endless. Employers should consider as a non-routine task any job that is "out of the ordinary" for themselves or their employees.

OBJECTIVE 2

Identify the importance of non-routine tasks in hazard communication.

Non-routine tasks are important in hazard communication because they may involve using or working around hazardous substances.

☑ **NOTE:** Remember, "non-routine" does not mean "non-dangerous." Treat non-routine tasks just as you would all other jobs that present the risk of exposure to hazardous substances. The *Oklahoma Standard* applies to all such tasks, routine and non-routine.

OBJECTIVE 3

List guidelines for handling non-routine tasks involving hazardous substances.

Because non-routine tasks are hard to define and categorize, this unit can only present some general guidelines for handling such tasks.

To safely accomplish any potentially hazardous non-routine task, you should

1. Identify all non-routine tasks at your workplace that involve the use of or exposure to hazardous materials.
2. Obtain or develop the necessary MSDSs for the hazardous substances involved in the non-routine tasks.
3. Describe the specific physical and health hazards to all employees affected.
4. Explain the labeling system or special instructions involved in the non-routine tasks.
5. Promote and provide access to the necessary MSDSs.

☑ **NOTE:** The steps listed for handling non-routine tasks are general. In dealing with such tasks, follow all of the specific guidelines presented in this program.

WORKSHEET 1 | *NON-ROUTINE TASKS* | **4**

Name _____

OBJECTIVE 4

List non-routine tasks at your workplace.

INSTRUCTIONS

List non-routine tasks at your workplace in the blanks provided. Include a brief explanation of why they are non-routine tasks.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

REVIEW SHEET

NON-ROUTINE TASKS

4

Name _____ Score _____

OBJECTIVE 1

Define a non-routine task in hazard communication. Define a non-routine task in the space provided.

_____

_____

_____

_____

_____

OBJECTIVE 2

Identify the importance of non-routine tasks in hazard communication. Circle the correct answer.

Non-routine tasks are important in hazard communication because

a. They may involve greater liability for the employer
b. They may require the services of outside contractors
c. They may involve using or working around hazardous substances
d. None of the above

OBJECTIVE 3

List guidelines for handling non-routine tasks involving hazardous substances. List three guidelines in the space provided.

1. _____

_____

2. _____

_____

3. _____

_____

OBJECTIVE SHEET

EMPLOYEE TRAINING GUIDELINES 5

INTRODUCTION

Employee training is the key to reducing or eliminating the risks associated with hazardous materials in the workplace. Oklahoma has a poor record of preventing job-related injuries and illnesses resulting from the presence of hazardous substances. Employers CAN reduce the human, material, and financial expenses of injuries and illnesses through a comprehensive employee training program. An employee training program does not have to be time consuming; it must simply be comprehensive for the particular workplace. The time invested in a quality training program is cost-effective, because it will result in increased productivity and effectiveness on the job.

The objective of this unit is to help employers properly educate employees about hazardous substances that form a part of their jobs. The training process involves training the trainers and training the employees. Follow the guidelines listed below when developing an employee training program:

1. Develop a written program of hazard communication.
2. Use your written program as a basis for employee training.
3. Adapt the lessons and guidelines in this unit to meet your specific needs.
4. Apply this unit as one possible outline of your employee training program.

UNIT OBJECTIVE

After completing this unit, you will show the following competencies by completing the activities on the Worksheets and by completing the Review Sheet.

SPECIFIC OBJECTIVES

1. Identify requirements for an employee training program.
2. Identify persons the employer must train.
3. State when to provide added instruction.
4. Answer questions about the structure of a training program.

5. Answer questions about employee training recordkeeping.
6. Complete a workplace training checklist. (Worksheet 1)
7. Outline an employee training program. (Worksheet 2)

INFORMATION SHEET	*EMPLOYEE TRAINING GUIDELINES*	5

OBJECTIVE 1

Identify requirements for an employee training program.

An employee training program must include:

- The nature of the hazards at the workplace
- Appropriate work practices
- Protective measures
- Emergency procedures

☑ **NOTE:** These four areas should be the framework of a total training program. Employers can cover all of the essential topics by using these areas as a guide.

OBJECTIVE 2

Identify persons the employer must train.

The *Oklahoma Hazard Communication Standard* requires you to train:

1. Current employees,
2. Any employee within the first thirty (30) days of employment and/or transfer, AND
3. All employees at least annually.

☑ **NOTE:** The *Federal Standard* (29 CFR 1910.1200) requires training at the time of an employee's initial assignment and whenever a new hazard arises. The *Oklahoma Standard* requires training for current employees, any employee within the first thirty days of employment and/or transfer, and all employees at least annually. The *Oklahoma Standard* also includes requirements for added training.

Employers are responsible for developing and using an employee training program. However, IF a service contractor's work or materials pose a health hazard to employees, the employer can also require the service contractor to provide employees with the necessary training about the contractor's hazardous substances.

OBJECTIVE 3

State when to provide added instruction.

In addition to the basic training program for current and new employees, employers must also provide added instruction

- When the employee may be routinely exposed to *additional hazardous substances.*
- When the employee may be exposed to substances requiring *special precautions.*
- When the employee's *potential for exposure is increased* through (1) changing work practices, (2) introducing new toxic and hazardous substances, and (3) introducing new potentially hazardous equipment.

OBJECTIVE 4

Answer questions about the structure of a training program.

As a general rule, employers should make their training programs meet the specific needs of their workplaces in hazard communication. Employers should also consider these steps when organizing their training programs:

1. Identify information and training common to all employees.
2. Identify information and training for each specific department or work area.
3. Gather training materials, such as
   - written texts and policies
   - sample MSDSs, CILs, and labels
   - samples of hazardous substances, if appropriate
   - protective clothing and equipment
   - other materials, as needed
4. Include hazard communication training in existing job safety training, if possible.

5. Determine the scope of employee training programs:

   - In large groups
   - By single departments or work areas
   - One-on-one with individual employees
   - A combination of the above

OBJECTIVE 5

Answer questions about employee training recordkeeping.

In addition to inventory control and recordkeeping, employers should also keep records of employee training sessions and those who participate. With employee training, recordkeeping means responsibility. Employees are responsible for understanding and following the concepts presented in a hazard communication program. Such a system of recordkeeping of employee training programs provides employers with a **record of responsibility**.

After an employer has created a comprehensive employee training program, the employer should keep a record of (1) who attends the training sessions, and (2) when employees attend the training sessions. To keep such records, employers will need two (2) documents for their files:

1. A signed or initialed attendance list from each training session.

2. An individual signed statement from each employee confirming the employee's receipt of training in hazard communication.

☑ **NOTE:** If an employee training program contains much written material, the employer should also have some adequate means for assessing the training of employees who comprehend visual guidelines better than written ones. For example, an employer may want employees with poor reading skills to demonstrate their receipt of training through an oral examination.

Name _____

OBJECTIVE 6

Complete a workplace training checklist.

INSTRUCTIONS

- Complete the following checklist to help create an employee training program for your workplace.
- If you can check YES for every item on this list, your workplace has a very good basis for training its employees in hazard communication. If you check NO for any of the items on this list, your workplace should revise its employee training program to include the missing items.

MY WORKPLACE HAS	YES	NO
1. Identified information and training common to all employees.	____	____
2. Identified information and training for each specific department or work area.	____	____
3. Gathered training materials.	____	____
4. Included hazard communication training in the existing job safety training, if possible.	____	____
5. Determined the scope of the employee training program.	____	____
6. Decided who is responsible for initial training.	____	____
7. Decided who is responsible for review training.	____	____
8. Developed a training schedule.	____	____

	YES	NO
9. Created recordkeeping forms for the employee training program.	____	____
10. Made provisions for added training.	____	____
THE TRAINING PROGRAM COVERS		
1. All hazardous substances at the workplace.	____	____
2. Physical and health hazards of these substances.	____	____
3. Methods of detecting the presence of hazardous substances at the workplace.	____	____
4. Procedures for notifying others about the presence of hazardous materials detected.	____	____
5. What to label.	____	____
6. How to read labels.	____	____
7. How to use a Work Area CIL.	____	____
8. How to obtain a MSDS.	____	____
9. How to read a MSDS.	____	____
10. Kinds of exposure at the facility.	____	____
11. Routes of entry of hazardous substances at the workplace.	____	____
12. Amounts of exposure.	____	____
13. Proper work procedures.	____	____
14. Protective clothing and equipment.	____	____
15. Spill procedures and equipment.	____	____
16. Locations of treatment facilities in cases of emergency.	____	____

		YES	NO
17.	MSDS emergency information.	____	____
18.	Emergency procedures.	____	____
19.	Employer rights and responsibilities.	____	____
20.	Employee rights and responsibilities.	____	____
21.	Provisions for added training.	____	____

WORKSHEET 2 — *EMPLOYEE TRAINING GUIDELINES*

Name _____

OBJECTIVE 7

Outline an employee training program.

INSTRUCTIONS

- On the following pages are sample lesson plans for an employee training program.
- Using a separate sheet of paper, outline lesson plans to meet the specific training needs of your workplace.

LESSON 1 | **THE NATURE OF THE HAZARDS**

TOPICS

1. The need for hazard communication training at the workplace
2. All hazardous substances at the workplace
3. Physical and health hazards of hazardous substances at the workplace
4. Methods for detecting the presence of hazardous substances at the workplace
   a. By sight
   b. By odor
5. Procedures for notifying others about the presence of hazardous materials detected

MATERIALS

Samples of the hazardous materials present at the facility, IF APPROPRIATE and SAFE.

HINT

Adopt a "facility-specific" attitude for LESSON 1. Introduce the concept of hazard communication as it applies to your specific facility.

LESSON 2 | **WORK PRACTICES**

TOPICS

1. What to label
2. How to read labels
   a. Chemical name(s) of hazardous substances
   b. CAS or Trade Secret Registry number
   c. Explicit hazard warnings
   d. Names and addresses of responsible parties
   e. Words, pictures, and symbols
   f. Colors
3. How to use a Work Area CIL
4. How to obtain a MSDS
5. How to read a MSDS
   a. Heading
   b. Manufacturer's data
   c. Hazardous ingredients
   d. Physical/Chemical characteristics
   e. Fire and explosion hazards
   f. Reactivity hazards
   g. Health hazards
   h. Special precautions
   i. Control measures

MATERIALS

1. Labels
2. CILs
3. MSDSs

151

☑ **NOTE:** Obtain these materials for each employee.

HINT

Discuss each topic with employees as it applies to your workplace. Distribute the materials before you discuss each topic, and use only those CILs and MSDSs that you maintain at your facility.

Emphasize the importance of the MSDS to an effective program of hazard communication, and answer any questions about CILs and MSDSs before you proceed to the next lesson.

Promote employee access to CILs and MSDSs at your facility.

LESSON 3

PROTECTIVE MEASURES

TOPICS

1. Kinds of exposure at the facility
    a. Acute exposure — short term
    b. Chronic exposure — long term
    c. Exposure with non-routine tasks
2. Routes of entry of hazardous substances at the workplace
    a. Inhalation
    b. Ingestion
        1) Accidental ingestion of substances
        2) Contamination of eating, drinking, or other materials
    c. Skin absorption
3. Amounts of exposure, based upon
    a. Toxicity of substance
    b. Concentration of substance
    c. Length of exposure time
    d. Limits of exposure
        1) Permissible Exposure Limit (PEL)
        2) Threshold Limit Value (TLV)
        3) Other limits
4. Proper work procedures
5. Protective clothing and equipment
    a. Safety glasses and goggles
    b. Face shield
    c. Gloves/rubber gloves

d. Boots and other footwear

e. Apron

f. Respiratory equipment

g. Ventilation equipment

h. Full\special protective clothing

i. PLUS others that may apply to yotir facility

6. Spill procedures and equipment

MATERIALS

Samples of protective clothing and equipment required or in use at your facility.

HINT

Promote "safety first." Show your employees exactly how to wear any required protective clothing and how to use the proper equipment. You can promote safety and protective measures if you

1. Set an example.

2. Have the support of informal leaders and employee representatives.

3. Allow your employees to participate in the decision-making process regarding protective clothing and safety measures.

4. Insist that your employees follow all of the established protective measures for hazardous substances at your workplace.

LESSON 4 | **EMERGENCY PROCEDURES**

TOPICS

1. Location of treatment centers in cases of emergency, including facilities
   a. In the workplace
   b. In the community
2. MSDS emergency information
3. Emergency procedures
   a. Types of emergencies
      1) Spills
      2) Leaks
      3) Fire
      4) Explosion
      5) Personal injury
   b. Medical procedures and first-aid
   c. Who to contact in an emergency
   d. Where to go in an emergency
      1) Evacuation routes and exits
      2) Treatment facilities
   e. How to use fire extinguishers, rescue, and clean-up equipment

MATERIALS

1. Sample of a completed MSDS for a hazardous substance at your facility.
2. Sample printed instructions for fire extinguishers and rescue/clean-up equipment.

☑ **NOTE:** Provide samples for each employee.

3. Map or floor plan of your workplace showing the locations of treatment or first-aid centers.

HINT

Demonstrate a sample emergency to your employees. Choose a hazardous substance that is present at your workplace, and describe the correct emergency responses and procedures to follow with that particular substance.

Discuss the required information from the MSDS for each type of emergency, i.e. What MSDS information do I need for a spill? leak? fire? explosion? personal injury? Use both the appropriate MSDS and your own written policies as guidelines.

Create a WRITTEN POLICY for emergency situations that may involve the hazardous substances at your facility, and teach that specific policy. You may simply have to revise your current policy to meet the requirements of your hazard communication program and the *Oklahoma Hazard Communication Standard.*

LESSON 5 | **RIGHTS AND RESPONSIBILITIES**

TOPICS

1. Employer rights and responsibilities
   a. Creating a written hazard communication program for the workplace
   b. Enforcing the standards of the written hazard communication program
   c. Personnel and disciplinary action
2. Employee rights and responsibilities
   a. Requesting access to written records
   b. Observing the guidelines established in the employee training program
   c. Notifying the employer upon receiving a potentially hazardous exposure to any hazardous substance at the workplace
   d. Refusing to work with or around a hazardous substance if access to CILs and MSDSs is denied
3. Provisions for added training
   a. When the employee may be routinely exposed to additional hazardous substances
   b. When the employee may be exposed to substances requiring special precautions
   c. When the employee's potential for exposure is increased through (1) changing work practices, including non-routine tasks, (2) introducing new toxic and hazardous substances, and (3) introducing new potentially hazardous equipment

MATERIALS

1. *Oklahoma Hazard Communication Standard*
2. Your own policies on rights and responsibilities (in written form)

HINT

Discuss rights and responsibilities as they relate to hazard communication at your workplace. Integrate your own written policies with the requirements of the *Standard*.

REVIEW SHEET

EMPLOYEE TRAINING GUIDELINES

5

OBJECTIVE 1

Identify requirements for an employee training program. Circle the correct answer.

An employee training program must include:

a. The nature of the hazards at the workplace
b. Appropriate work practices
c. Protective measures
d. Emergency procedures
e. All of the above

OBJECTIVE 2

Identify persons the employer must train. Circle the correct answer.

The Oklahoma Hazard Communication Standard requires employers to train:

a. Current employees
b. Any employee within the first thirty (30) days of employment and/or transfer
c. All employees at least annually
d. All of the above
e. None of the above

OBJECTIVE 3

State when to provide added instruction. Write two (2) reasons for added instruction in the space provided.

1. _____

_____

_____

2. _____

_____

_____

OBJECTIVE 4

Answer questions about the structure of a training program. Write a short answer to the following questions in the space provided.

1. List two training materials to supplement an employee training program.

2. Discuss the ways of determining the scope of an employee training program.

3. What should be identified when organizing an employee training program?

OBJECTIVE 5

Answer questions about employee training recordkeeping. Write a short answer to the following questions in the space provided.

1. Employers should keep records of what two items concerning training programs?

   _____

   _____

2. To keep records of employee training, employers need what two (2) documents?

   _____

   _____

   _____

   _____

APPENDIX I

OKLAHOMA HAZARD COMMUNICATION STANDARD

✔ **NOTE:** Use this Appendix as a reference with this Workbook only. You should use an actual copy of the *Standard* at your workplace.

OAC 380:45 DEPARTMENT OF LABOR

CHAPTER 45. OKLAHOMA HAZARD COMMUNICATION STANDARD

Subchapter	Section
1. General Provisions	380:45-1-1
3. Employer Responsibilities	380:45-3-1
5. Fire Safety	380:45-5-1
7. Employee Rights and Responsibilities	380:45-7-1
9. Trade Secrets	380:45-9-1
11. Enforcement	380:45-11-1
13. Effective Dates	380:45-13-1
15. Asbestos Notice and Labeling	380:45-15-1
17. Resource Information	380:45-17-1
19. Hazard Communication Committee	380:45-19-1

[Authority: 40 O.S. Sections 401 et seq.]

[Source: Codified 12-31-91]

SUBCHAPTER 1. GENERAL PROVISIONS

Section

380:45-1-1. Purpose
380:45-1-2. Definitions
380:45-1-3. Findings of the Commissioner of Labor
380:45-1-4. Provisions of these regulations
380:45-1-5. Exclusions

380:45-1-1. Purpose

The purpose of the rules in Chapter 45 are to implement a hazardous communication standard for public employees as mandated by State law.

380:45-1-2. Definitions

For the purpose of these regulations, the terms defined hereunder shall have the following meanings therein respectively ascribed to them. Where terms are not defined, the ordinarily accepted meanings within the proper context shall apply.

"Aggregate amount" means any combination of hazardous material(s) as defined by this Chapter.

"Asbestos containing material" means any material that has been determined by a competent laboratory facility to contain more than one percent (1%) asbestos by weight.

"CAS number" means the unique identification number assigned by the Chemical Abstract Service to chemicals.

"Chemical name" means the scientific designation of a substance in accordance with the nomenclature system developed by the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstract Service (CAS) rules of nomenclature or an alternate name found in the National Institute of Safety and Health (NIOSH) Registry of Toxic Effects of Chemical Substances (RTECS) or a prescription generic drug name.

"Common name" means any designation or identification, such as trade name or number, code name or number, brand name or generic name used to identify a substance other than by its chemical name.

"Container" means any barrel, bottle, box, can, cylinder, drum, pipe or piping system, storage tank, reaction vessel, or the like that contains a hazardous material.

"Distributor" means a business, other than a chemical manufacturer or importer, which supplies hazardous substances to the employer.

"Employee" means a person permitted to work by an employer in employment.

"Employee representative" means any individual or organization authorized by an employee to exercise such employee's rights under these regulations.

"Employer" means any entity of the state and its political subdivisions, which has in its employ one or more individuals performing services for it in employment.

"Facility" means all buildings and other stationary items located on contiguous property under common ownership or control.

"Fire department" means any duly constituted fire department operating under the authority of Title 11 article XXIX fire departments or Title 19 Chapter 21 fire protection districts or Title 18 corporations. Industrial fire brigades are excluded from this definition.

"Hazardous substance" means any substance which is a physical hazard or a health hazard.

"Health hazard" means any chemical, or biological substance or agent which is listed in the U.S. Occupational Safety and Health Administration's list of Toxic and Hazardous Substances, 29 CFR Part 1910, Subpart "Z"; any other substances including but not limited to chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatopoietic systemics; agents which damage the lungs, skin, eyes or mucous membranes; any substance for which a Material Safety Data Sheet has been provided by the manufacturer as a hazardous material; or such substances deemed by the Commissioner, based on documented scientific evidence, that pose a threat to the safety and health of an employee.

"Manufacturer" means a person or establishment where hazardous substances are produced, synthesized, extracted, imported, or otherwise made for use or distribution.

"Mixture" means a combination of two or more hazardous substances if the combination does not occur in nature and is not, in whole or part, the result of a chemical reaction.

"Physical hazard" means any chemical which is a compressed gas, explosive, flammable, organic peroxide, oxidizer, pyrophoric, unstable (reactive) or water-reactive, or which is contained in the U.S. Occupational Safety and Health Administration's list of Hazardous Materials, 29 CFR Part 1910 Subpart "H"; any substance for which a material safety data sheet has been provided by the manufacturer as a hazardous material; or such substances deemed by the Commissioner, based on documented scientific evidence, that pose a threat to the safety and health of an employee.

"Proprietor" means the owner, manager, or other person or organization which has control over any location where hazardous substances are present, and which is subject to the jurisdiction of employers subject to the provisions of this Chapter.

"Research laboratory" means a specifically designated area used primarily for research, development, and testing activity, and not primarily involved in the production of goods in which hazardous substances are used.

"Service contractor" means any person, company, or corporation that provides a service to the employer with or without a written agreement.

"Significant amount" means any amount of hazardous material(s) meeting the criteria in 380:45-5-5(d).

"Trade secret" means any formula, plan, pattern, process, production data, information, or compilation of information, which is not patented, which is known only to a manufacturer and certain other individuals, and which is used in the fabrication and production of an article of trade or service, and which gives the manufacturer possessing it a competitive advantage over businesses who do not possess it, or the secrecy of which is certified by an appropriate official of the federal government as necessary for national defense purposes. The chemical name and Chemical Abstract Service number of a substance shall be considered a trade secret only if the manufacturer can establish that the substance is unknown to competitors. In determining whether a trade secret is valid pursuant to these regulations, the Commissioner shall consider material provided by the manufacturer concerning the following:

(1) The extent to which the information for which the trade secret claim is made is known outside the manufacturer's business;
(2) The extent to which the information is known by others involved in the manufacturer's business;
(3) The extent of measures taken by the manufacturer to guard the secrecy of the information;
(4) The value of the information to the manufacturer or the manufacturer's competition;
(5) The amount of effort or money expended by the manufacturer in developing the information;
(6) The ease or difficulty with which the information could be disclosed by analytical techniques, laboratory procedures, or other means.

"Wet floor" means a floor which is used on an occasional to routine basis to collect, contain, maintain or transmit standing liquids.

"Work area" means any room or defined space, whether within or outside of a building or other structure, where hazardous substances are present, produced, used or where exposure could occur.

"Workplace" means any location away from home, permanent or temporary, where any employee performs any work related activity in the course of his/her employment.

380:45-1-3. Findings of the Commissioner of Labor

The Oklahoma State Department of Labor recognizes that many places of work pose potential acute and chronic health hazards to employees who are exposed to varying forms and concentrations of hazardous substances. Additionally, the Oklahoma State Department of Labor recognizes that public employers and public employees have a right and need to know the properties and potential safety and health hazards of substances to which they may be exposed, and that such knowledge is essential to reducing the incidence and cost of occupational illness and injury. The Oklahoma State Department of Labor, therefore, intends by these regulations to ensure the transmission of necessary information to public employees regarding the properties and the potential hazards of hazardous substances in the workplace.

380:45-1-4. Provisions of these regulations

The rights and duties set forth in these regulations apply to all public employers who use hazardous substances in this State; to any person who imports and sells a hazardous substance to any public employer in this State; and to manufacturers who produce, repackage, distribute and sell hazardous substances to any public employer in this State; and to the proprietor of any location where hazardous substances are present, and which are subject to fire protection by employees pursuant to this Chapter. The provisions of these regulations apply to hazardous substances which are present in the workplace, as a result of workplace operations, in such a manner that employees may be exposed under normal conditions of work or in a reasonably foreseeable emergency resulting from workplace operations.

380:45-1-5. Exclusions

(a) These regulations do not apply to any substances which are foods, drugs, cosmetics or tobacco products intended for personal consumption by employees while in the workplace. Additionally, these regulations do not apply to any consumer products and food stuffs packaged for distribution to and intended for use by the general public.

(b) Except as provided in this section, these regulations do not apply to hazardous substances being developed and used only in research laboratories.

(1) For all research laboratories, the employer shall provide the following to all employees and their designated representatives:

(A) The chemical name of the hazardous substance,
(B) A training and education program which shall be designed to inform employees of the appropriate work practices, the appropriate protective measures, and the appropriate emergency measures regarding hazardous materials in the workplace.

(2) The employer shall maintain any material safety data sheets as defined by these regulations and/or any additional information relating to the toxicity or hazardousness of those hazardous substances and the employer shall ensure that this information is available to employees and their designated representatives.

(3) The employer shall ensure that labels on incoming containers of hazardous substances are not removed or defaced.

SUBCHAPTER 3. EMPLOYER RESPONSIBILITIES

Section

380:45-3-1. Chemical information lists
380:45-3-2. Material safety data sheets
380:45-3-3. Providing CIL and MSDS to purchasers
380:45-3-4. CIL and MSDS review
380:45-3-5. Access to written records: availability
380:45-3-6. Labeling
380:45-3-7. Training and education program

380:45-3-1. Chemical information lists

(a) Each employer shall develop and maintain Chemical Information Lists (CIL) containing the common and trade names of all hazardous substances present in the workplace. Such annual CILs shall be maintained in alphabetical order cross-referenced to their chemical names.

(b) A CIL shall be maintained on each employee indicating the type of chemical exposures received throughout their employment in the workplace and this information shall:

(1) be stored for not less than 40 years; or
(2) be provided to employees on a regular periodic basis, or upon termination in a form that includes the following statement, "You should preserve this report for future reference."

(c) Whenever an employer discovers that an employee has received a potentially hazardous exposure to any substance or agent covered under this Chapter, the employer shall immediately notify the employee of the exposure and take such steps as may be necessary to provide medical evaluation, monitoring, or treatment.

380:45-3-2. Material safety data sheets

(a) Each employer shall obtain or develop a material safety data sheet (MSDS) for each hazardous substance which he/she has identified on the CIL.

(b) Each MSDS shall reflect the information contained in the sources consulted by the manufacturer in his/her hazard determination and shall contain at least the required information specified by 29 CFR 1915.97(B).

(c) Provision of a U.S. OSHA Form 20 MSDS or equivalent shall constitute prima facie proof of compliance with 380:45-3-2(b).

(d) If the employer becomes aware of any information which is significant regarding the health hazard of a substance, and which does not appear on the MSDS, this shall be added to the MSDS within a reasonable period of time, but not to exceed thirty days. Where trade secrets are involved, the manufacturer shall be informed in writing of the discovery and a copy shall be forwarded to the Oklahoma Department of Labor for follow-up.

380:45-3-3. Providing CIL and MSDS to purchasers

(a) Manufacturers, distributors, and service contractors shall provide appropriate MSDS to the purchasers of hazardous substances which are employers as defined in this Chapter upon request.

(b) Purchasers may require that:

(1) MSDS be provided by the manufacturer, distributor, or service contractor at the time a bid to provide the product or service is submitted for review; or
(2) Each time a purchase of the substance is made, unless provided for in 380:45-3-3(b)(1), the MSDS shall precede the shipment; or
(3) Any time there is a change that alters the composition of the substance, the MSDS mailing shall precede shipment of the product or commencement of the service.

380:45-3-4. CIL and MSDS review

The chemical and common names of all hazardous substances introduced into the workplace subsequent to the original listing shall be appended to the CIL when introduced into the workplace, but not to exceed a thirty-day period with the original listing and appendage being revised and realphabetized annually. Each employer required to prepare CILs and MSDSs, shall review their CILs and MSDSs, and shall update, revise and realphabetize as needed but not less than annually.

380:45-3-5. Access to written records: availability

(a) Upon request by an affected employee or employee representative, the employer shall assure access to copies of the CIL(s) and MSDS(s) required by these regulations and shall ensure that they are readily accessible as soon as possible in a reasonable time, place, and manner, but in no event later than one working day after the request for access is made.

(b) In addition, whenever any affected employee or employee representative requests a copy of the CIL and MSDS, the employer shall, within fifteen days, assure that either a copy or a mechanical means to copy is provided.

380:45-3-6. Labeling

(a) Labels on containers shall be applied to each container when provided to the employer from the manufacturer or distributor. Containers used by service contractors shall likewise be labeled prior to use of the hazardous substance in the employer's workplace.

(b) The employer shall take any action necessary to ensure that every container in the work area containing a hazardous substance shall bear a label indicating the chemical name and CAS number for the substance.

(c) If the label contains a mixture, the employer shall ensure that the label identifies the chemical names and CAS numbers of the five most predominant substances contained in the mixture. The provisions of this section shall not apply to any substance constituting less than one percent (1%) of a mixture unless the substance is present at the workplace in an aggregate amount of five hundred (500) pounds or more.

(d) Employers shall be required to label pipelines only at the valve or valves located at the point at which a substance enters the workplace's pipeline system, and at normally operated valves, outlets, vents, drains and sample connections designed to allow the release of a substance from the pipeline.

(e) The provisions of this section shall not apply to any substances labeled pursuant to the Federal Insecticide, Fungicide and Rodenticide Act, 61 Stat. 163 (7 USC Section 121 et al.). The Commissioner may certify containers labeled pursuant to any other federal and/or state act as labeled in compliance with the provisions of this section.

(f) The employer shall not be required to label portable containers into which hazardous substances are transferred from labeled containers, and which are intended only for the immediate use by the employee who performs the transfer.

380:45-3-7. Training and education program

(a) Each employer shall have an employee training and education program designed to communicate information to each employee about the hazardous substances to which they are exposed. Additionally, the program shall include the established mechanism for employees to obtain and use the appropriate CILs and MSDSs.

(b) This training and education shall be provided within the first thirty days of employment and/or transfer and at least annually and shall include but not be limited to the nature of the hazards, appropriate work practices, protective measures and emergency procedures. Such information shall not be inconsistent with that contained in the MSDSs, which shall be used as a basis for the training and education program.

(c) The employer shall provide additional instruction whenever the employee may be routinely exposed to additional hazardous substances or substances which require special precautions, or whenever the employee's potential for exposure is increased due to changes in work practices or through the introduction of new toxic and hazardous substances or equipment.

(d) Employers may require that service contractors whose work or materials pose a health hazard to the employer's employees shall be responsible for the provisions of 380:45-3-7(a) through (c).

SUBCHAPTER 5. FIRE SAFETY

Section

380:45-5-1. List of work areas: facility map
380:45-5-2. Supply of information
380:45-5-3. Confidentiality of information
380:45-5-4. Research laboratory
380:45-5-5. Placarding
380:45-5-6. Procedure for non-compliance

380:45-5-1. List of work areas: facility map

Proprietors shall provide to the person responsible for the administration and direction of a fire department in a county, municipality, or political subdivision and having fire protection authority over the proprietor's location, including the state fire marshal, fire chief or fire administrator, or that person's designee:

(1) A list of work areas, sufficiently identified by name and location, where hazardous substances are consistently generated by, used by, stored at, or transported from the proprietor's facility. The list shall contain chemical and common name of each substance in alphabetical order;

(2) A facility description map indicating the entire premise occupied by the business, the streets and adjacent occupancies, location of open storm drains inside and outside, utility shut off locations, hazardous chemical locations including storage areas, loading areas, sumps, wet floors, underground tanks, and piping systems and any information that the proprietor believes would be important to emergency response personnel.

380:45-5-2. Supply of information

The person responsible for the administration and direction of the fire department in a county, municipality, or political subdivision, including the state fire marshal, fire chief or fire administrator, or that person's designee shall maintain the information provided by the proprietor under 380:45-5-1(1) of this section and shall provide copies of this information:

(1) To the fire suppression companies primarily responsible for fire suppression at the workplaces within their jurisdiction;
(2) To fire prevention and inspection divisions within the same jurisdiction; and
(3) Upon request to any fire department employee or a representative of fire department employees pursuant to 380:45-5-3.

380:45-5-3. Confidentiality of information

No fire department receiving location information as provided by this section and pursuant to the provisions of these regulations shall make this information available to the public. Any fire department may request from a proprietor further information concerning the location information provided pursuant to the provisions of these regulations that may be reasonably required to protect the safety and health of employees and the employer shall provide the additional information upon the request thereof.

380:45-5-4. Research laboratory

Each proprietor of a research laboratory at such location shall establish a communication and information exchange program with the fire department which shall be designed to assist the fire department in adequately preparing to respond to emergencies at such research laboratory.

380:45-5-5. Placarding

(a) **Signs required and adoption by reference.**

The proprietor shall post signs which shall comply with this Chapter. The proprietor need not comply with the sign posting requirements of 380:45-5-5(a)(2) if the building, structure, or location within the building or structure does not contain a significant amount of the hazardous chemical as defined in 380:45-5-5. The National Fire Protection Association's standard system for identifying fire hazards of chemicals based on NFPA Standard 704-1985 Edition is adopted by reference.

(1) **Size.** The signs shall be at least seven and one-half (7 1/2) inches on each side. The sign shall have four spaces, each at least three and three-fourths (3 3/4) inches on a side. Numbers and symbols within each of the four spaces shall be at least three (3) inches in height.

(2) **Location.** If a building or structure has a floor space of five thousand (5,000) square feet or less, a proprietor shall post signs on the outside of the building or structure identifying the type of each hazardous chemical contained in the building or structure. If the building has more than five thousand (5,000) square feet, in addition to the signs posted outside, the proprietor shall post a sign at the place within the building where each hazardous chemical is permanently stored to identify the type of hazardous chemical. If the hazardous chemical is moved within the building, the proprietor shall also move the sign or post an additional sign at the location(s) where the hazardous chemical is moved. This subsection applies to significant amounts of a hazardous chemical as defined in 380:45-5-5(d).

(3) **Categories.** The signs shall identify hazards of a chemical in terms of three principal categories, namely: "health," "flammability," and "reactivity" (instability), and indicate the order of severity numerically by fire divisions ranging from four (4), indicating a severe hazard, to zero (0), indicating no special hazard. This information is to be presented by a spatial system of diagrams with "health" always being on the left, "flammability" at the top, and "reactivity" (instability) on the right. Supplementing the spacing arrangement, color backgrounds or numbers are used for three categories, with blue representing "health" hazard, red representing "flammability," and yellow representing "reactivity" (instability). The fourth space, at the bottom, is used to indicate unusual reactivity or other special hazard warnings in black and white colors.

(b) **Proprietor variance applications.**

A proprietor may make application to the Commissioner for less stringent sign posting requirements.

(1) The proprietor shall make written application for a variance.

(2) The proprietor shall have the burden of proof to show that compliance imposes undue hardship on the proprietor and that the less stringent sign posting requirements as proposed by the proprietor offer substantially the same degree of notice and protection to emergency responders.

(c) **Agreement between a proprietor and fire department.**

In instances where the number of signs exceeds five, and where posting of a sign for each hazardous chemical would be ambiguous, repetitive, or where space is limited by the physical characteristics of the structure, the proprietor may enter into a written agreement with the fire chief of the local fire department which provides for the posting of signs for the most hazardous chemical in each principal category as set in 380:45-5-5(d)(2). The agreement is subject to the approval of the Commissioner of Labor pursuant to the procedure for a variance as specified in 380:45-5-5(b). If the variance is approved, the employer shall post in the same location as the required posted signs, a sign stating: "Signs not posted for all hazardous chemicals." The signs shall be in block letters at least three (3) inches in height.

(d) **Significant amounts.**

A chemical meeting any of the following criteria shall be considered a "significant amount" of hazardous chemicals:

(1) Any amount of a hazardous chemical which is classified according to the U.S. Department of Transportation as:

(A) A class A explosive,
(B) A class B explosive,
(C) A class A poison,
(D) A class B poison,
(E) A flammable solid with a "dangerous when wet" warning, or
(F) Any radioactive material requiring a special license from the Nuclear Regulatory Agency.

(2) The aggregate amount of hazardous chemical(s) stored, placed, or used at the workplace is greater than or equal to fifty-five (55) gallons of liquid or five hundred (500) pounds of non-liquid or eight hundred (800) cubic feet of pressurized gas where the numerical rating of the hazardous chemical based on the NFPA 704-1985 system results in a :

(A) Health rating of greater than or equal to two (2), or
(B) Flammability rating of greater than or equal to two (2), or
(C) Reactivity rating of greater than or equal to one (1).

If the hazardous chemical is a combination of the liquid and non-liquid states, the aggregate amount measurement shall be made considering the combined poundage.

(3) The requirements of this Chapter shall be superseded by other state or federal laws where those regulations are more restrictive.

(e) **Recommended communications.**

It is recommended that the local fire departments and proprietors meet to collaborate on the types and amounts of hazardous chemicals as well as any unusual hazards which may be encountered by emergency response personnel.

380:45-5-6. Procedure for non-compliance

If a proprietor fails to comply with the requirements of Subchapter 5, the fire chief in the jurisdiction of the proprietor may file a written complaint with the Commissioner.

(1) The Commissioner may rely on the information provided by the fire chief and immediately issue a notice of non-compliance to the proprietor or may conduct an investigation or inspection pursuant to the Oklahoma Hazard Communication Standard.

(2) In the event of a hearing, notice of non-compliance shall be sent by certified mail and shall set forth that the proprietor named have an opportunity to be heard, upon demand by the proprietor. In the event the proprietor demands a hearing, the Commissioner may conduct the said hearing.

(3) In the event the proprietor does not demand a hearing within thirty days of the receipt of notice of non-compliance, the Commissioner shall, without further notice, issue an order for compliance which shall be a final agency action pursuant to the Oklahoma Occupational Health and Safety Standards Act.

(4) In the event the issue of non-compliance comes for hearing before the Commissioner, the Commissioner may, at the conclusion of the hearing, issue an order for compliance which shall be a final agency action pursuant to the Oklahoma Occupational Health and Safety Standards Act or dismiss the complaint.

SUBCHAPTER 7. EMPLOYEE RIGHTS AND RESPONSIBILITIES

Section

380:45-7-1. Employee protected
380:45-7-2. Disciplinary actions
380:45-7-3. Hazardous exposure

380:45-7-1. Employee protected

If any employee has requested information pursuant to 380:45-3-5, and has not received the information within the specified time period, the employee may then refuse to work with the substances or at the location for which the request was made. An employer may not discharge or initiate any adverse personnel action against any employee because the employee has exercised his/her right under this provision. An employer may not request or require any employee to waive any rights under these regulations and in any event if such waivers are executed they shall be null, void and unenforceable.

380:45-7-2. Disciplinary actions

Employees working in areas where exposure(s) to hazardous substance(s) exist shall be required to perform their jobs in accordance with precautions communicated to them during training and education programs. Employers may take appropriate disciplinary action when an employee does not comply with the precautionary measures this Chapter mandates.

380:45-7-3. Hazardous exposure

An employee, upon receiving a potentially hazardous exposure to any substance or agent covered under this Chapter, shall immediately notify the employer of such exposure.

SUBCHAPTER 9. TRADE SECRETS

Section

380:45-9-1. Chemical manufacturer trade secret
380:45-9-2. Information provided to purchaser
380:45-9-3. Physician information
380:45-9-4. MSDS

380:45-9-1. Chemical manufacturer trade secret

(a) Subject to the provisions of 380:45-9-2 and 380:45-9-3, any employer, chemical manufacturer, or distributor may withhold from a purchaser the precise chemical name of a hazardous substance if the substance has been recognized pursuant to the provisions of 29 CFR 1910.1200 (i), except that the employer, chemical manufacturer, or distributor provides written substantiation of the trade secret to the Commissioner within thirty days after asserting the trade secret claim.

(b) Upon receipt of the trade secret claim, the Commissioner shall act to make a determination of the validity of a trade secret claim when a request is made pursuant to the provisions of this Chapter for the disclosure of the information for which the trade secret claim was made, or at any time that the Commissioner deems appropriate. Upon making a determination of the validity of a trade secret claim, the Commissioner shall inform the employer of the determination by certified mail. If the Commissioner determines that the trade secret claim is not valid, the employer shall have forty-five days from the receipt of the Commissioner's determination to file with the Department of Labor a request for an administrative hearing on the determination. The determination shall then be adjudicated by an action for a declaratory judgment filed by the affected employer in the district court of Oklahoma County or in the county in which such employer does business.

380:45-9-2. Information provided to purchaser

An employer, chemical manufacturer, or distributor shall provide to the purchaser:

(1) An identification of the chemical by generic chemical classification that would permit independent toxicological evaluation by a health professional; and

(2) All information required by this Chapter other than the precise chemical name.

380:45-9-3. Physician information

The information withheld under 380:45-9-1 shall be provided to:

(1) A physician who states in writing that a patient's health problems may be the result of occupational exposure; or

(2) A physician who in an emergency situation requests the information; or

(3) A health professional, including an industrial hygienist, toxicologist, or physician who states in writing that the information is needed to evaluate potential health problems from actual exposure.

380:45-9-4. MSDS

For any substance regulated by 380:45-9-1, the material safety data sheet shall include:

(1) An indication of which category of information is being withheld on trade secret grounds;

(2) The name of the manufacturer; and

(3) An emergency telephone number where information could be obtained under 380:45-9-3 of this Chapter.

SUBCHAPTER 11. ENFORCEMENT

Section
380:45-11-1. Enforcement

380:45-11-1. Enforcement

The provisions of these regulations shall be enforced pursuant to the provisions of Title 40, Chapter 10 Oklahoma Occupational Health and Safety Standards Act.

SUBCHAPTER 13. EFFECTIVE DATES

Section

380:45-13-1. Hazardous material containers
380:45-13-2. Employer compliance
380:45-13-3. Political subdivision

380:45-13-1. Hazardous material containers

Hazardous material containers shipped subsequent to November 25, 1985, shall be accompanied by material safety data sheets.

380:45-13-2. Employer compliance

Employers shall be in compliance with all provisions of this Chapter, with the exception of Subchapter 5, by May 25, 1986, including initial training for all current employees.

380:45-13-3. Political subdivision

Subchapter 5 shall become effective for political subdivisions as follows:

(1) October 25, 1986 for populations over 100,000;

(2) January 25, 1987 for populations less than 100,000.

SUBCHAPTER 15. ASBESTOS NOTICE AND LABELING

Section

380:45-15-1. Labeling
380:45-15-2. Asbestos notice
380:45-15-3. School inspections

380:45-15-1. Labeling

Pipes, boilers, storage vessels, structural members or equipment with insulating material that might be removed, penetrated, damaged or otherwise disturbed by repair, remodeling, renovation, maintenance or other activity, shall be labeled with cautionary labels. Such caution labels shall be printed in letters of sufficient size and contrast as to be readily visible and legible. Each room or area where the conditions requiring such labels exist shall have a minimum of one such label, and such additional labels as may be necessary to insure ready visibility and legibility. Such equipment with asbestos containing material shall bear the following label:

DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD

380:45-15-2. Asbestos notice

For facilities with asbestos containing material used as acoustical material on ceilings or walls, employers or their representatives having administrative jurisdiction over such facilities shall insure that the following notice is posted informing employees of the presence of asbestos in the workplace:

NOTICE TO EMPLOYEE
This facility has been inspected for the presence
of asbestos containing material.
Asbestos containing material is present in this facility.
Asbestos containing material may cause health problems.

380:45-15-3. School inspections

Schools inspected pursuant to the Environmental Protection Agency's asbestos inspection program (40 CFR Part 763) and having complied with the notification requirement contained therein (40 CFR 763.6) shall be exempt from the requirements of 380:45-15-2.

SUBCHAPTER 17. RESOURCE INFORMATION

Section

380:45-17-1. Data sources
380:45-17-2. Organization standards
380:45-17-3. Library depositories

380:45-17-1. Data sources

The following is a list of available data sources which the employer or employees' representative may wish to consult to evaluate the hazards of chemicals present in the workplace. Any pertinent information obtained from the following source list shall be considered the equivalent of an enforceable standard incorporated by reference (latest edition should be used):

(1) CONDENSED CHEMICAL DICTIONARY, Van Nostrand Reinhold Co., 135 West 50th Street, New York, NY 10020.

(2) DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS, by N. Irving Sax, Van Nostrand Reinhold Co., 135 West 50th Street, New York, NY 10020.

(3) INDUSTRIAL HYGIENE AND TOXICOLOGY, by F.A. Patty, John Wiley and Sons, Inc., New York, NY (Five volumes)

(4) CLINICAL TOXICOLOGY OF COMMERCIAL PRODUCTS, Gleason, Gosselin and Hodge

(5) INDUSTRIAL TOXICOLOGY, by Allice Hamilton and Harriet L. Hardy, Publishing Sciences Group, Inc., Acton, MA

(6) RECOGNITION OF HEALTH HAZARDS IN INDUSTRY, William A. Burgess, John Wiley and Sons, 605 Third Avenue, New York, NY 10158.

(7) CHEMICAL HAZARDS OF THE WORKPLACE, Nick H. Proctor and James P. Hughes, J.P. Lipincott Company, 6 Winchester Terrace, New York, NY 10022.

(8) THRESHOLD LIMIT VALUES FOR CHEMICAL SUBSTANCES AND PHYSICAL AGENTS IN THE WORKROOM ENVIRONMENT WITH INTENDED CHANGES, American Conference of Governmental Industrial Hygienists, 6500 Glenway Avenue, Bldg. D-5, Cincinnati, OH 45211.

(9) OCCUPATIONAL HEALTH GUIDELINES, NIOSH/OSHA (NIOSH Pub. No. 81-123) NIOSH/OSHA Pocket Guide to Chemical Hazards (NIOSH Pub. No. 78-210).

(10) THE INDUSTRIAL ENVIRONMENT — ITS EVALUATION AND CONTROL, U.S. Department of Health and Human Services, Public Health Service, Center for Disease Control, National Institute for Occupational Safety and Health (NIOSH Pub. No. 74-117)

380:45-17-2. Organization standards

Specific standards of the following organizations have been referred to in this Chapter. Copies of the standards may be obtained from issuing organizations.

(1) American Conference of Governmental Industrial Hygienists, 1014 Broadway, Cincinnati, Ohio 45202.

(2) 29 CFR Parts 1910/1926, Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

380:45-17-3. Library depositories

The majority of the items referred to in 380:45-17-1 and 380:45-17-2 are cost items. Any Federal or State Documents mentioned above are also available at library depositories throughout the state. A list of depositories is on file at the Labor Department.

SUBCHAPTER 19. HAZARD COMMUNICATION COMMITTEE

Section
380: 45-19-1. Establishing a committee

380:45-19-1. Establishing a committee

In order to more effectively administer the Oklahoma State Hazard Communication (Right to Know) Standard, the Commissioner of Labor shall establish a committee to study emergency response and hazard communication problems.

APPENDIX II

FIRE HAZARD DEFINITIONS

COMBUSTIBLE LIQUID — Any liquid with a flash point within the range 100-200 degrees Fahrenheit.

CORROSIVES — A liquid or solid that causes visible destruction or irreversible alterations in human skin tissue at the point of contact.

ETIOLOGIC AGENTS — A viable micro-organism or its toxin that causes or may cause human disease.

✍ **NOTE:** See 49 CFR 173.386 or 42 CFR 72.25c for further details.

EXPLOSIVES — Any chemical compound, mixture, or device that functions by explosion, i.e., with instantaneous release of gas and heat due to chemical breakdown or rapid combustion.

1. Class A Explosive — An explosive of maximum hazard that functions by detonation and includes the following eight (8) categories:

   (1) Solid explosives that can be made to deflagrate (burn rapidly) when unconfined by contact with sparks or flame, but cannot be detonated with a No. 8 blasting cap.

   EXAMPLES: black powder and low order explosives

   (2) Solid explosives with a liquid ingredient that can be detonated when unconfined with a No. 8 blasting cap.

   EXAMPLES: high explosives, commercial dynamite containing liquid explosive ingredients

   (3) Solid explosives that contain no liquid ingredient and can be detonated when unconfined with a No. 8 blasting cap.

   EXAMPLES: high explosives, commercial dynamite containing no liquid ingredients, trinitrotoluene, amatol, tetryl, picric acid, urea nitrate, pentolite, and commercial boosters

   (4) Solid explosives that can be detonated when unconfined by contact with sparks or flame.

   EXAMPLES: lead azide, fulminate of mercury, and high explosives

   (5) Desensitized liquid explosives, i.e. explosives that can be detonated separately or when absorbed in sterile absorbent cotton with a No. 8 blasting cap.

   EXAMPLES: high explosives and desensitized nitroglycerine

(6) Liquid explosives that can be exploded in a Bureau of Explosives Impact Apparatus under a drop of less than ten (10) inches.

EXAMPLE: nitroglycerine

(7) An initiating device, i.e., a metal or plastic casing that contains initiating or priming explosives (Class A Type 4) either with or without other explosives and activated by external means to provide explosive output to initiate other explosives or to do work.

(8) Any device, solid or liquid compound, or mixture that does not belong with any of the other types listed and which under special conditions may be so designated.

EXAMPLES: shaped charges, commercial (See 49 CFR 173.53 for more information.)

2. Class B Explosives — Explosives which in general function by rapid combustion rather than by detonation and which include some explosive devices such as special fireworks, flashpowders, some pyrotechnic signal devices, and liquid or solid propellant explosives, including some smokeless powders.

☛ **NOTE:** See 49 CFR 173.88 for more information.

FLAMMABLE GASES — Any substance that is a gas at ambient temperatures (the temperature of the surrounding environment) and that will form an ignitable mixture.

FLAMMABLE LIQUIDS — Any liquid having a flash point below 100 degrees Fahrenheit.

FLAMMABLE SOLIDS — Any solid other than an explosive that under normal conditions can be ignited through friction, retained heat from manufacturing processes, or those solids that can be readily ignited and burn so vigorously and persistently that they create serious hazards.

IRRITANTS — A liquid or solid material which upon contact with air gives off dangerous or intensely irritating fumes, but does not include poisonous materials.

NON-COMBUSTIBLE LIQUID — A liquid with a flash point above 200 degrees Fahrenheit. Many non-combustible liquids can be ignited and are just as dangerous as liquids with lower flash points. The flash point is the important indicator. When a non-combustible liquid reaches its flash point in the presence of an ignition source, it becomes as dangerous as the substances with lower flash points.

ORGANIC PEROXIDES — An organic compound that contains the bivalent -0-0 structure and which may be considered a derivative of hydrogen peroxide where one or more of the hydrogen atoms have been replaced by organic radicals, unless it is already classified as an explosive.

OXIDIZERS — Substances such as chlorates, permanganates, inorganic peroxides, or nitrates that produce oxygen readily in sufficient quantities to stimulate or initiate combustion.

POISON CLASS A — Poisonous gases or liquids that, when a very small amount of the gas or vapor of the liquid is mixed with air, is dangerous to life.

> EXAMPLES: boracetone, cyanogen, cyanogen chloride, diphosgene, ethyldichlorarsine, hydrocyanic acid, methyldichlorarsine, nitrogen peroxide, phosgene (diphosgene), nitrogen tetroxide-nitric oxide mixtures.

POISON CLASS B — Liquids or solids other than Class A poisons and irritants, but including plastics and semisolids, that are known to be so toxic to man that they are a hazard to health; or which, in the absence of adequate data on human toxicity, are presumed to be toxic to man because they fall within any one (1) of these categories when tested on laboratory animals:

1. Oral toxicity — Those which cause death within 48 hours in half or more of a group of at least 10 white laboratory rats, each weighing 200-300 grams, with a single dose of 50 milligrams (mg) or less per kilogram of body weight, when given orally.

2. Toxicity on inhalation — Those which cause death within 48 hours in half or more of a group of at least 10 white laboratory rats, each weighing 200-300 grams, when inhaled continuously for a period of one hour or less at a concentration of 2 milligrams (mg) or less per liter of vapor, mist, or dust, provided that such a concentration is likely to be encountered by a person when the chemical product is used in any reasonable foreseeable manner.

3. Toxicity by skin absorption — Those which cause death within 48 hours in half or more of a group of at least 10 rabbits tested at a dosage of 200 milligrams (mg) or less per milligram of body weight, when administered by continuous contact with the bare skin for 24 hours or less.

☑ **NOTE:** See 49 CFR 173.326 - 173.343 for more information on poisons.

RADIOACTIVE MATERIALS — Any material or combination of materials that spontaneously emit ionizing radiation. However, alpha rays, beta rays, gamma rays, x-rays, neutrons, high speed electrons, and protons are all associated with RADIATION.

APPENDIX III

ADDRESSES

SUGGESTED RESOURCES

1. **American Trucking Association**
   2200 Mill Road
   Alexandria, Virginia 22314
   (800) ATA-LINE

   Offers: Publications on handling and transporting hazardous materials; labels; placards, latest editions of Title 49 CFR. Catalog available.

2. **BNA Communications, Inc.**
   9439 Key West Ave.
   Rockville, Maryland 20850-3396
   (301) 948-0540

   Offers: Films on handling hazardous waste. Series of films examine packaging, transport, the Uniform Hazardous Waste Manifest, lab packaging, the disposal facility, and the waste management process.

3. **G.P.O. Bookstore**
   1100 Commerce St., Room 1C46
   Dallas, Texas 75242-1001
   (214) 767-0076

   Offers: Government publications such as Code of Federal Regulations.

4. **J.J. Keller & Associates, Inc.**
   145 West Wisconsin Ave.
   Neenah, Wisconsin 54957-0368
   (800) 558-5011

   Offers: Videos on hazardous materials regulations, hazard communication labels, the Hazard Communication Standard and the Material Safety Data Sheet. Placards, labels, forms, supplies such as spill control materials and drums, and books on hazardous materials and chemicals. Catalog available.

5. **Labelmaster**
   5724 N. Pulaski Road
   Chicago, Illinois 60646-6797
   (800) 358-6200
   FAX No. 1-312-478-6054

   Offers: Equipment, supplies, labels, forms and publications dealing with hazardous waste packaging, transportation, and safety. Catalog available.

6. **Lab Safety Supply**
P.O. Box 1368
Janesville, Wisconsin 53547-1368
(800) 356-0783

Offers: Catalog of equipment, supplies labels, forms, and publications dealing with hazardous waste packaging, transportation and safety.

7. **Superintendent of Documents**
U.S. Government Printing Office
Washington, D.C. 20402
(202) 783-3238

Offers: Government publications.

8. **National Safety Council**
444 North Michigan Avenue
Chicago, Illinois 60611
(800) 621-7619

9. **Oklahoma Safety Council**
P.O. Box 14686
Oklahoma City, OK 73113
(405) 848-8628

10. **Legible Signs, Inc.**
2221 Nimtz Road
Rockford, Illinois 61111
(815) 654-0100

11. **National Marker Co.**
P.O. Box 1659
Pawtucket, RI 02862
(800) 453-2727

12. **Story Fire and Safety**
333 North Portland
Oklahoma City, OK 73107

Lists of Hazardous Chemicals

1. **ACGIH**
6500 Glenway Avenue, Bldg. D-5
Cincinnati, Ohio 45211

2. **Monographs**
WHO Publications Centre USA
49 Sheridan Avenue
Albany, New York 12210

3. **NTP Annual Report**
National Technical Information Service
U.S. Department of Commerce
5285 Port Royal Road
Springfield, Virginia 22161

Other Resources

1. *Chemical Safety Slide Rule*
Stock No. 129.91
National Safety Council
425 North Michigan Avenue
Chicago, Illinois 60611

2. *Clinical Toxicology of Commercial Products*, by M.N. Gleason
The Williams and Wilkins co.
428 East Preston Street
Baltimore, Maryland 21202

3. *Fire Protection Guide on Hazardous Materials*
National Fire Protection Association
Batterymarch Park
Quincy, Massachusetts 02269

NOTE: Also available: NFPA 101 Life Safety Code

4. *Handbook of Laboratory Safety*, by Norman V. Steere
CRC Press, Inc.
2000 Corporate Blvd, NW
Boca Raton, Florida 33431

5. *Handbook of Organic Industrial Solvents, Technical Guide No. 6*
American Mutual Insurance Alliance
20 North Wacker Drive
Chicago, Illinois 60606

6. *MIL-STD-1314A, Symbols for Packages and Containers for Hazardous Industrial Chemicals and Materials*
Naval Supply Depot
5801 Tabor Avenue
Philadelphia, PA 19120

7. *Best's Safety Directory* (current edition)
A.M. Best Company
Ambest Road
Oldwick, New Jersey 08858
(201) 439-2200

APPENDIX IV

SIGN VARIANCE PROCEDURES

SIGN VARIANCE PROCEDURES

1. Apply in writing for a variance to the Commissioner of the Oklahoma Department of Labor, and

2. Prove that compliance with the sign posting requirements of the *Standard* imposes undue hardship, and that your proposed requirements offer substantially the same degree of notice and protection to emergency responders.

OR

1. Have a written agreement with the fire chief of your local fire department, in cases where the number of signs exceeds five (5) and where posting a sign for each hazardous chemical would be ambiguous, repetitive, or where space is limited by the physical characteristics of the structure.

   ☛ **NOTE:** Subject to approval from the Commissioner of the Oklahoma Department of Labor.

2. Post signs for the most hazardous chemical in each principal category, and

3. Post a sign in the same location as the required signs, stating "Signs not posted for all hazardous chemicals." This sign must be in BLOCK letters, each at least three inches (3") tall.

APPENDIX V

EMPLOYEE PERSONAL SAFETY CHECKLIST

EMPLOYEE PERSONAL SAFETY CHECKLIST

The following guide contains an alphabetical listing of items covered under the Oklahoma Occupational Safety and Health Standards Act. It includes a checklist for safety, health, and reporting compliance. If you can circle the compliance block for all items applicable to your operations, you will have a safe, healthful operation and be in compliance with the *Standard's* requirements.

Use the following rating scale:

0 — Not Applicable or Not Observed
1 — Does Not Meet *Standard*
2 — Meets *Standard*
3 — Exceeds *Standard*

ABRASIVES

1.	Blast cleaning nozzles are equipped with a dreadman control.	0	1	2	3
2.	Blast cleaning enclosures must have positive ventilations.	0	1	2	3
3.	Abrasive wheels, on machines with bench or floor stands, must comply with the following provisions. However, there are exceptions for self-contained grinders and portable grinders.	0	1	2	3
4.	Grinding wheels are provided with safety guards.	0	1	2	3
5.	Grinding wheel safety guards do not expose more than 65 degrees of the grinding wheel periphery above the horizontal plane of the wheel spindle.	0	1	2	3
6.	The protecting member is adjustable for variations in wheel diameters, distance between wheel periphery, and the adjustable guard shall never exceed 1/4".	0	1	2	3
7.	Abrasive wheel safety guards cover spindle end, nut, and flange projection or a means is provided to protect operators if they are exposed.	0	1	2	3
8.	An adjustable work rest is provided, where offhand grinding is performed, and the work rest is kept adjusted with a maximum clearance of 1/8".	0	1	2	3
9.	Machines are secured to prevent movement during normal operations.	0	1	2	3

ACCIDENT REPORTING

10.	All accidents which are fatal to one or more employees, or which result in the hospitalization of five or more employees are reported to Oklahoma Department of Labor within 48 hours after the occurrence.	0	1	2	3

AISLES AND PASSAGEWAYS

11.	Where mechanical handling equipment is used, sufficient safe clearance is allowed for aisle, at loading docks, through doorways, and at corners.	0	1	2	3
12.	Aisles and passageways used by mechanical equipment are kept clear and in good repair with no obstructions across aisles that could create hazards.	0	1	2	3
13.	Permanent aisles and passageways are appropriately marked.	0	1	2	3
14.	Covers and/or guardrails shall be provided to protect personnel from hazards of open pits, tanks, vats, ditches, etc.	0	1	2	3

BELT SANDING MACHINES

15.	Guards are provided at each nip point.	0	1	2	3
16.	Unused run of sanding belt is guarded against accidental contact.	0	1	2	3

BOILERS

17.	Design is covered by Code of Fired Pressure Vessels, Section 1, ASME.	0	1	2	3
18.	Boiler is inspected and approved on an annual basis by a certified boiler inspector.	0	1	2	3
19.	A valid boiler inspection certificate is conspicuously attached to each boiler.	0	1	2	3
20.	All boilers are equipped with approved type water column, gauge glass and try cocks, and gauge glasses are protected to prevent breakage.	0	1	2	3

CHAINS, CABLES, ROPES, HOOKS, ETC.

21.	Chains, cables, ropes, hooks, etc. on overhead and gantry cranes are inspected daily for deformation, cracks, excessive wear, twists, stretch, etc. and defective gear is replaced or repaired.	0	1	2	3
22.	Hooks and chains are inspected daily with a report on condition.	0	1	2	3
23.	Hooks and chains are inspected monthly with a full written report on condition, which is kept in a file and made readily available to appointed personnel.	0	1	2	3
24.	Running ropes are inspected monthly and a written on condition is kept in a file and made readily available to appointed personnel.	0	1	2	3
25.	Hoist ropes on crawler, locomotive, and truck cranes are free from kinks or twists and are not wrapped around the load.	0	1	2	3
26.	All U-bolt wire rope clips on hoist ropes on overhead and gantry cranes are installed so that the U-bolt is in contact with the dead end (short or nonload carrying end) of the rope.	0	1	2	3
27.	All U-bolt clips are installed in accordance with manufacturer's recommendations and shall be guarded against accidental contact by means of approved cabinets or other forms of approved enclosures or by location.	0	1	2	3

CHIPGUARDS

28.	Effective chipguarding is provided to protect personnel against flying chips.	0	1	2	3
29.	Effective guarding includes protective shields or barriers.	0	1	2	3
30.	Effective guarding includes personnel protective equipment.	0	1	2	3

COMPRESSED AIR

31.	Compressed air, used for cleaning, does not exceed 30 psi when the nozzle is obstructed or dead-ended.	0	1	2	3
32.	When compressed air is used for cleaning , effective chip guarding and/or personal protective equipment is used.	0	1	2	3

COMPRESSED GASES

33.	In-plant handling, storage and use of all compressed gases in cylinders, portable tanks, rail tankers, or motor vehicle cargo tanks is in accordance with the Compressed Gas Association Pamphlet P-1.	0	1	2	3

CRANES AND HOISTS (OVERHEAD GANTRY)

34.	All functional operating mechanisms are visually inspected daily. (Includes air and hydraulic systems, chains, rope slings, hooks and other lifting equipment.)	0	1	2	3
35.	Complete inspections of cranes are performed at 1 to 12 month intervals (depending upon activity level and/or environment.	0	1	2	3
36.	Complete inspection includes items such as deformed, cracked, corroded, worn or loose members or parts; the brake system; limit indicators; power plant; and electrical apparatus.	0	1	2	3
37.	Overhead cranes have stops at the limit of travel of the trolley.	0	1	2	3
38.	Overhead cranes have bridge and travel bumpers or equivalent automatic devices installed. In cases where bridge trucks are used, sweeps are provided.	0	1	2	3
39.	The rated load of the crane is clearly marked on each side.	0	1	2	3
40.	In cases where cranes have more than one hoisting unit, each hoist has its rated load marked on it or on its load block.	0	1	2	3

41.	Load markings on cranes are clearly legible from the ground.	0	1	2	3

CYLINDERS, COMPRESSED GAS, USED IN WELDING

42.	Compressed gas cylinders are kept away from excessive heat.	0	1	2	3
43.	Cylinders are stored where they are not liable to be damaged or knocked over by passing or falling objects.	0	1	2	3
44.	Cylinders are stored at least 20 feet away from highly combustible materials.	0	1	2	3
45.	Where cylinders are designed for protective caps, the protective caps are in place when the cylinder is not connected for use.	0	1	2	3
46.	Acetylene cylinders are stored in a vertical, valve-end-up position only.	0	1	2	3
47.	Oxygen cylinders in storage are separated from fuel-gas cylinders or combustible materials (especially grease) by a minimum distance of 20 feet.	0	1	2	3
48.	Oxygen cylinders are separated by a noncombustible barrier at least 5 feet high having a fire resistant rating of at least 1/2 hour (in cases where they cannot be separated by a minimum distance of 20 feet from combustible materials).	0	1	2	3

DIPTANKS CONTAINING FLAMMABLE OR COMBUSTIBLE LIQUIDS

49.	Dip tanks of over 150 gallons capacity or 10 square feet in liquid surface are equipped with properly trapped overflow pipes leading to a safe location outside the building.	0	1	2	3
50.	There are no open flames, spark producing devices, or heated surfaces having a temperature sufficient to ignite vapors in any vapor area.	0	1	2	3
51.	Areas in the vicinity of dip tanks are kept free of combustible stock (as is practical) and kept entirely free of all combustible debris.	0	1	2	3
52.	All dip tanks, except hardening and temperature tanks, exceeding 150 gallons capacity to having a liquid surface area exceeding 4 square feet are protected with an approved automatic extinguishing system.	0	1	2	3
53.	All hardening and tempering tanks having a liquid surface area of 25 square feet or more or a capacity of 500 gallons or more have an approved automatic extinguishing system.	0	1	2	3

DOCKBOARDS

54.	Dockboards are strong enough to carry the load imposed upon them.	0	1	2	3
55.	Portable dockboards are anchored or equipped with devices to prevent their slipping.	0	1	2	3
56.	Dockboards have handholds or other effective means to allow safe handling.	0	1	2	3
57.	Positive means are provided to prevent railroad cars from being moved while dockboards are in position.	0	1	2	3

DRINKING WATER

58.	Potable drinking water is provided in all places of employment.	0	1	2	3
59.	Potable drinking water dispensers are designed, constructed, and serviced to ensure sanitary conditions.	0	1	2	3
60.	Potable drinking water dispensers are capable of being closed or have a top.	0	1	2	3

ELEVATORS, DUMBWAITERS, ESCALATORS, AND MOVING WALKS

61.	Elevators, escalators and moving walks have a single means for disconnecting all ungrounded main power supply conductors for each unit.	0	1	2	3
62.	A warning saying, "Warning—Parts of the control panel are not de-energized by this switch," is used when interconnections between control panels are necessary for operation of the system on a multicare installation where an energizing source other than the disconnecting means is used.	0	1	2	3
63.	Elevators are inspected annually by a competent inspector.	0	1	2	3
64.	All hoistway openings are protected by double doors or gates that are interlocked with the control, so the car cannot be started until all gates or doors are closed.	0	1	2	3
65.	All hoistway doors are interlocked to prevent opening doors when the car is not at a landing.	0	1	2	3

ELECTRICAL UTILIZATION EQUIPMENT

66.	Conductors are spliced or joined with devices suitable for the use or by brazing, welding or soldering.	0	1	2	3
67.	All splices, joints and free ends of conductors are covered with an insulation equivalent to that of the conductor or with an insulating device suitable for the purpose.	0	1	2	3
68.	Electrical equipment is provided with markings to indicate voltage, current, wattage and other ratings as necessary.	0	1	2	3
69.	Electrical equipment is marked in accordance with the manufacturer's identification information.	0	1	2	3
70.	Live parts of electrical equipment operating at 50 volts or more are guarded against accidental contact by means of approved cabinets or other forms of approved enclosures, or by location.	0	1	2	3
71.	Entrances to guarded electrical locations are marked with warning signs.	0	1	2	3
72.	For a grounded system, a grounding electrode conductor is used to connect both the equipment grounding conductor and the grounded circuit conductor to the grounding electrode.	0	1	2	3
73.	Both equipment grounding conductor and grounding electrode are connected to the grounded circuit on the supply side of the service disconnecting means or on the supply side of the system disconnecting means or overcurrent devices if the system is separately derived.	0	1	2	3
74.	Ungrounded service-supplied systems have the equipment grounding conductor connected to the grounding electrode conductor at the service equipment.	0	1	2	3
75.	The path from circuits, equipment, and enclosures is permanent and continuous.	0	1	2	3

Exposed non current-carrying metal parts of fixed equipment which may become energized are grounded if:

76.	Within 8 feet vertically or 5 feet horizontally of ground, or grounded metal objects, if subject to employee contact.	0	1	2	3
77.	Located in a wet or damp location and not isolated.	0	1	2	3
78.	In electrical contact with metal.	0	1	2	3
79.	In a hazardous locations.	0	1	2	3

80.	Exposed non-current carrying metal parts of cord-and-plug connected equipment which are energized are grounded unless otherwise approved or excepted.	0	1	2	3
81.	Flexible cords and cables are not used to substitute for fixed wiring of a structure.	0	1	2	3
82.	Flexible cords (where permitted) are run in continuous lengths without splice or tap. (Hard service cords of number 12 or large size may be repaired if properly serviced.)	0	1	2	3
83.	Flexible cords (where permitted) are protected with devices and fittings to provide strain relief to prevent pulling from being directly transmitted to joints or terminal screws.	0	1	2	3

EMERGENCY ACTION PLANS

84.	An emergency action plan is developed to insure employee safety in the event of fire or other emergencies.	0	1	2	3
85.	The emergency action plan is in writing.	0	1	2	3
86.	The emergency action plan has been reviewed with affected employees.	0	1	2	3
87.	The emergency action plan includes escape procedures and routes.	0	1	2	3
88.	The emergency action plan includes critical plant operations.	0	1	2	3
89.	The emergency action plan includes employee accounting following an emergency evacuation.	0	1	2	3
90.	The emergency action plan includes rescue and medical duties.	0	1	2	3
91.	The emergency action plan includes a means of reporting emergencies.	0	1	2	3
92.	The emergency action plan includes persons to be contacted for information or for clarification.	0	1	2	3

EMERGENCY FLUSHING, EYES, AND BODY

93.	Emergency eyewash stations are provided where necessary.	0	1	2	3
94.	Emergency lab showers are provided where necessary.	0	1	2	3
95.	Emergency drenching tanks are provided where industry standards suggest them.	0	1	2	3

EXITS

96.	In hazardous areas, or where employees may be endangered by the blocking of any single means of egress due to fire or smoke, there are at least 2 means of egress and they are remote from each other.	0	1	2	3
97.	Exits and the way of approach and travel from exits are maintained so they are clear and unobstructed at all times.	0	1	2	3
98.	All exits discharge directly to the street or other open space that gives safe access to the public way.	0	1	2	3
99.	Exit doors serving more than 50 people, or in a high hazard area, swing in the direction of exit travel.	0	1	2	3
100.	Exits are marked by readily visible, suitable, illuminated exit signs.	0	1	2	3
101.	Exit signs are distinctive in color and provide contrast with surroundings.	0	1	2	3
102.	On exit signs, the word "EXIT" is of plainly legible letters (not less than 6 inches high).	0	1	2	3
103.	All doors, passages, or stairways which are not exits or way of exit access (that is likely to be mistaken for an exit) are identified with a sign reading "NOT AN EXIT" or of some similar designation.	0	1	2	3

EXPLOSIVES AND BLASTING AGENTS

104.	All explosives are kept in approved magazines.	0	1	2	3
105.	Stored packages of explosives are stored flat with the top side up.	0	1	2	3
106.	Black powder, when stored in a magazine with other explosives is stored separately.	0	1	2	3
107.	Smoking, matches, open flames, spark producing devices, and firearms (except firearms carried by guards) are not permitted inside of or within 50 feet of magazines.	0	1	2	3
108.	Land surrounding a magazine is kept clear of all combustible materials for a distance of at least 25 feet.	0	1	2	3
109.	Combustible materials are not stored within 50 feet of magazines.	0	1	2	3

EYE AND FACE PROTECTION

110.	Eye and face protection equipment provisions are in compliance with ANSI Z87.1, "Practice for Occupational and Educational Eye & Face Protection."	0	1	2	3
111.	Safety glasses or safety goggles are required in operations where there is a need for them.	0	1	2	3
112.	Employees wear eye protection where operations require eye protection.	0	1	2	3
113.	Special eye protection is provided where required for specific jobs.	0	1	2	3
114.	Correct lenses for welding are provided.	0	1	2	3
115.	Chemical goggles are provided where necessary.	0	1	2	3
116.	Impact glasses or impact goggles are provided where necessary.	0	1	2	3
117.	Proper glasses are provided where working with laser beam equipment.	0	1	2	3

FAN BLADES

118.	Fan blades with periphery of blades less than 7 feet above the floor or working area are guarded.	0	1	2	3
119.	Fan blade guards have openings no larger than 1/2 inch in their least dimension.	0	1	2	3
120.	Fan blade guard material is sufficiently strong to maintain protection.	0	1	2	3

FIRE DOORS

121.	Fire doors are properly labeled as such.	0	1	2	3
122.	Fire doors are not blocked or tied in an open position.	0	1	2	3
123.	Fusible links for fire doors are located so as to properly function in case of fire.	0	1	2	3
124.	Each metal clad fire door has a three-inch diameter vent hole (through metal only): for doors up to 9 feet in height.	0	1	2	3
125.	Doors from 9 feet to 12 feet 4 inches in height have 2 three inch diameter vent holes (through metal only).	0	1	2	3
126.	Metal around vent holes in metal clad fire door is secured with small nails and the exposed wood is thoroughly painted.	0	1	2	3
127.	A closing device is installed on all fire doors with the exception of elevator and power operated dumbwaiter doors equipped with electric contacts or interlocks.	0	1	2	3

FIRE PROTECTION

128.	Portable fire extinguishers are provided where necessary.	0	1	2	3
129.	Portable fire extinguishers are maintained in effective operating condition.	0	1	2	3
130.	Portable fire extinguishers are located and mounted where conspicuous and readily accessible.	0	1	2	3
131.	Portable fire extinguishers are visually inspected monthly.	0	1	2	3
132.	Portable fire extinguishers are provided an annual maintenance check.	0	1	2	3
133.	Portable fire extinguishers are provided with an approved static test within the time period required for the specific extinguisher type.	0	1	2	3
134.	Records are maintained on regular inspections and service.	0	1	2	3
135.	When fire extinguishers are provided for employee use in the workplace, the employees are provided with an educational program to familiarize them with the general principles of fire extinguisher use and the hazards involved with incipient stage fire fighting.	0	1	2	3
136.	If class "A" fire extinguishers are not provided, approved standpipe systems are substituted for emergency use by employees.	0	1	2	3
137.	If standpipe systems are used instead of class "A" fire extinguishers, the standpipe system provides total coverage of the area to be protected.	0	1	2	3
138.	When standpipe systems are used instead of class "A" fire extinguishers, employees will be provided with, at least, annual training in the use of standpipe systems.	0	1	2	3

FLAMMABLE LIQUIDS INCIDENTAL TO PRINCIPAL BUSINESS

139.	Flammable liquids are kept in covered containers or tanks when not in use.	0	1	2	3

Answer questions 140 through 142 using the following statement:

The quantity of flammable liquid located outside of an inside storage room or storage cabinet in any one fire area of building does not exceed:

140.	25 gallons of class IA liquids in containers.	0	1	2	3
141.	120 gallons of class IB, IC, II, or III liquids in containers.	0	1	2	3

142.	660 gallons of class IB, IC, II, or III liquids in a single portable tank.	0	1	2	3
143.	Flammable and combustible liquids are drawn from or transferred into containers within a building through a closed piping system, from approved safety cans, by pumping through the top, or by gravity through an approved self-closing valve.	0	1	2	3
144.	Using air pressure to transfer flammable or combustible liquids is not allowed.	0	1	2	3
145.	Inside storage rooms for flammable and combustible liquids are of fire restrictive constructions.	0	1	2	3
146.	Inside storage rooms for flammable or combustible liquids are liquid tight where walls join the floor.	0	1	2	3
147.	Inside storage rooms for flammable or combustible liquids have approved self-closing fire doors at all openings.	0	1	2	3
148.	Inside storage rooms for flammable and combustible liquids have at least 4-inch sills, ramps or depressed floors or an open integrated trench which drains to a safe location.	0	1	2	3
149.	Inside storage rooms for flammable and combustible liquids have a ventilation system that provides at least 6 air changes within the room per hour.	0	1	2	3
150.	Inside storage rooms for class I flammable liquids have approved electrical wiring for use in hazardous locations.	0	1	2	3
151.	Outside storage areas are graded to divert spills away from buildings or other exposures.	0	1	2	3
152.	Outside storage areas, if not provided with graded drainage, are surrounded with curbs or dikes (at least 6 inches high) with appropriate drainage to a safe location for accumulated liquids.	0	1	2	3
153.	Outside storage areas are protected against tampering or trespassing.	0	1	2	3
154.	Outside storage areas are kept free of weeds, debris, and other combustible material not necessary to the storage.	0	1	2	3
155.	Unit physical operation areas where flammable liquids with flashpoints below 100 degrees Fahrenheit (class I liquids) are used have a ventilation rate of at least 1 cubic foot per minute per square foot of solid floor area.	0	1	2	3

156.	Sources of ignition are eliminated from areas where flammable vapors could collect and be ignited.	0	1	2	3
157.	Class I liquids are not dispensed into containers unless the nozzle and container are electrically interconnected.	0	1	2	3

FLOORS, GENERAL CONDITIONS

158.	All floor surfaces are kept free from protruding nails, splinters, loose boards, holes, or projections.	0	1	2	3
159.	All floor surfaces are kept dry as is practical.	0	1	2	3
160.	Floors used for storage purposes are posted to show maximum safe floor loads.	0	1	2	3
161.	Stairway and ladderway floor openings are guarded with a standard railing with a standard toeboard on all exposed sides except at the entrance.	0	1	2	3
162.	Entrances to ladderway openings are guarded to prevent a person from walking directly into the opening.	0	1	2	3
163.	Infrequently-used stairways may be constructed with a hinged cover and removable standard railings.	0	1	2	3
164.	Hatchways and chute openings are guarded by hinged floor opening covers equipped with standard railings to leave only one side exposed or a removable railing with toeboard on not more than two sides and fixed standard railing with toeboards on all other exposed sides.	0	1	2	3
165.	All floor holes into which a person can accidentally walk are guarded with either a standard railing with a standard toeboard on all exposed sides, or a floor hole cover that is hinged in place.	0	1	2	3
166.	Any floor hole with a floor hole cover is attended when the floor hole cover is not in place.	0	1	2	3
167.	All open-sided floors, platforms or runways 4 feet or more above the adjacent floor or ground level are guarded by a standard railing with toeboard on all open sides except where there is an entrance to a ramp stairway, or fixed ladder.	0	1	2	3
168.	Runways not less than 18 inches wide, used exclusively for special purposes, may have the railing on one side omitted where operating conditions necessitate.	0	1	2	3

169.	Regardless of height, open sided floors, walkways, platforms, or runways above or adjacent to dangerous equipment are guarded with a standard railing and toeboard assembly.	0	1	2	3

FOOT PROTECTION

170.	Foot protection is worn when there is reasonable probability that injury can be prevented by such equipment.	0	1	2	3
171.	Safety-toe footwear meets the requirements of ANSI Z41.1 "Standard for Men's Safety-toe Footwear."	0	1	2	3

FORKLIFT TRUCKS (POWERED INDUSTRIAL TRUCKS)

172.	Trucks are taken out of service, when defective, until restored to safe operating condition.	0	1	2	3
173.	High lift rider trucks are equipped with substantial overhead guards, unless operating conditions do not permit.	0	1	2	3
174.	Fork trucks are equipped with a vertical load backrest extension when the type of load presents a hazard to the operator.	0	1	2	3
175.	Brakes of highway trucks are set and wheel chocks are placed under rear wheels to prevent the trucks from moving when they are boarded with forklift trucks.	0	1	2	3
176.	Only trained and competent operators are permitted to operate a powered industrial truck.	0	1	2	3
177.	A program is used to train and test operators to determine if they are competent before allowing them to operate industrial trucks.	0	1	2	3

GENERAL DUTY CLAUSE

Under the general provisions of 29 CFR 1910, there is a statement used to cover conditions or practices not specifically covered in the Standard. It states that "Each employer shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees."

178.	Our program provides for abatement of any RECOGNIZED conditions NOT SPECIFICALLY COVERED UNDER THE OKLAHOMA OCCUPATIONAL SAFETY AND HEALTH STANDARD WHICH COULD RESULT IN SERIOUS INJURY OR DEATH OF OUR EMPLOYEES.	0	1	2	3

GUARDS, CONSTRUCTION OF

179.	Guards for mechanical equipment are made of metal or other suitable material.	0	1	2	3
180.	Wood guards are only used in woodworking, chemical, and in other applications where atmospheric conditions would rapidly deteriorate metal or where temperature extremes would make metal guards undesirable.	0	1	2	3

HAND TOOLS

181.	A program exists to ensure that all hand tools are maintained in a safe manner.	0	1	2	3
182.	Handles of hand tools are kept tight, and wooden handles are kept free of splinters.	0	1	2	3
183.	Wedges, chisels, etc. are kept free of mushroomed heads.	0	1	2	3
184.	Wrenches are taken out of service when sprung to the point where slippage occurs.	0	1	2	3
185.	Frames of portable electrical tools and equipment are properly grounded (unless of U.L. listed double insulated construction).	0	1	2	3
186.	Electric-powered hand tools and equipment are removed from service and repaired or replaced when showing signs of worn, deteriorated, or inadequate insulation or other parts.	0	1	2	3

HEAD PROTECTION

187.	Head protection is worn in jobs where there is a possible danger of head injuries from impact, flying or falling objects, or electrical shock and burns.	0	1	2	3
188.	Helmets for protection against impact and penetration of falling objects meet the requirements of ANSI Z89.1.	0	1	2	3
189.	Helmets for protection against electrical shock and burns meet the requirements of ANSI Z89.2.	0	1	2	3

HOUSEKEEPING

190.	All places of employment, passageways, storerooms, and service rooms are kept clean and orderly, and in a sanitary condition.	0	1	2	3

LADDERS

191.	All rungs have a minimum diameter of 3/4 inch, if wood.	0	1	2	3
192.	All rungs are a minimum of 16 inches in length.	0	1	2	3
193.	All rungs are spaced uniformly no more than 12 inches apart.	0	1	2	3
194.	Cages, wells, or ladder safety devices are provided on all ladders more than 20 feet long: if they are affixed to towers, watertanks or chimneys.	0	1	2	3
195.	Landing platforms are provided on ladders for each 30 feet of length, except where no cage is provided. Then a landing platform is provided for every 20 feet of length: Applies to fixed industrial ladders.	0	1	2	3
196.	Tops of cages on fixed ladders extend 42 inches above the top of the landing, unless some other acceptable protection is provided.	0	1	2	3
197.	The bottom of cages on fixed ladders is not less than 7 feet nor more than 8 feet above the base of the ladder.	0	1	2	3
198.	Side rails for fixed ladders extend 3 ., 2 feet above the landing.	0	1	2	3

LADDERS, PORTABLE

199.	Step-ladders are equipped with a metal spreader or locking device of sufficient size and strength to securely hold the front and back in the open position.	0	1	2	3
200.	Ladders are inspected frequently and those found with defects are removed from service for repair or destruction.	0	1	2	3
201.	Non-selfsupporting ladders are erected on a sound base and used at a 4-1 pitch to prevent slipping.	0	1	2	3
202.	The top of ladders, when used to gain access to a roof, are extended at least 3 feet above the point of contact.	0	1	2	3
203.	When metal ladders are used in areas containing electrical hazards, proper safety precautions are taken.	0	1	2	3

LIGHTING (GENERAL)

204.	Adequate illumination is provided to perform work in a safe manner.	0	1	2	3

LUNCHROOMS

205.	Employees are not allowed to consume food or beverages in toilet rooms or in areas exposed to toilet material.	0	1	2	3
206.	Covered receptacles of corrosion resistant or disposable material are provided in lunch areas for disposal of waste food.	0	1	2	3

MECHANICAL POWER PRESSES

207.	Point of operation guards, where applicable, are properly installed on all presses.	0	1	2	3
208.	A substantial guard is placed over the treadle of foot operated presses.	0	1	2	3
209.	Pedal counterweights have the path of the travel of the weight enclosed.	0	1	2	3
210.	Machines with a full revolution clutch have a single stroke mechanism, unless automatically fed in continuous operation (in continuous operation mode, all points of the operation are fully safeguarded by a fixed barrier guard).	0	1	2	3
211.	A program of regular inspection is made and records are kept of inspections and maintenance work.	0	1	2	3

MACHINE GUARDING

Machine Guarding shall be provided to protect employees in the machine area from hazards such as those created by point of operation, nip points, rotation parts, flying chips, and sparks. The guard shall be such that it does not offer an accident hazard in itself.

The point of operation guarding device shall be so designed as to prevent the operator from having any part of his body in the danger zone during the operating cycle.

Special supplemental hand tools for placing and removing material shall permit handling of material without the operator placing a hand in the danger zone.

Some of the machines which usually require point of operation guarding are: Guillotine cutters, shears, alligator shears, power presses, milling machines, power saws, jointers, portable power tools, and forming rolls.

212.	Machine guarding is provided to protect employees from contact with moving machine parts.	0	1	2	3
213.	The point of operation is guarded to prevent the operator from having any part of his body in the danger zone during the operating cycle.	0	1	2	3

214.	Special supplemental hand tools for placing and removing material are used to permit the operator to operate without placing a hand in the danger zone.	0	1	2	3
215.	Machines such as guillotine cutters, shears, alligator shears, power presses, milling machines, power saws, jointers, portable power tools, forming rolls and calendars have been included in the inspection.	0	1	2	3

MACHINERY, FIXED

216.	All machines, designed for fixed location use, are securely anchored to prevent walking or moving, or designed in such a way as to prevent movement in normal operation.	0	1	2	3

MATS (INSULATING)

217.	Approved insulating mats or platforms are provided where motors or controllers operating at more than 150 volts to ground are guarded against accidental contact by location: To be used during adjustment or other attendance.	0	1	2	3

MEDICAL SERVICE AND FIRST AID

218.	Medical personnel are available for consultation on matters of plant health.	0	1	2	3
219.	If a medical facility is not readily available in the proximity of the workplace, a person or persons are trained to render first aid.	0	1	2	3
220.	First aid supplies, approved by the consulting physician, are readily available.	0	1	2	3

NOISE EXPOSURE

Protection against the effects of occupational noise exposure shall be provided when the sound levels exceed those shown in Table G-16 of the Safety and Health Standards. Feasible engineering and/or administrative control shall be utilized to keep exposure below the allowable limit.

When engineering or administrative controls fail to reduce the noise level to within levels of Table G-16 of the Safety and Health Standards, personal protective equipment shall be provided and used to reduce the noise to an acceptable level.

Exposure to impulsive or impact noise should not exceed 140 dB peak sound level.

In all cases, where the sound levels exceed an 8-hour time weighted average of 85 decibels measured on the A scale, a continuing, effective hearing conservation program shall be administered.

221.	Protection against the effects of occupational noise levels in excess of those allowable in Table G-16 of the Safety and Health Standards.	0	1	2	3
222.	Engineering and/or administrative controls are used to keep exposure below allowable limits.	0	1	2	3
223.	When engineering or administrative controls fail to reduce noise levels to within levels allowable in Table G-16, personal protective equipment is used to reduce noise to an acceptable level.	0	1	2	3
224.	Exposure to impulsive or impact noise does not exceed the 140 dB peak sound pressure level.	0	1	2	3
225.	In all cases where an 8-hour time weighted average of 85 decibels, measured using the A scale reference, exists, a continuing effective hearing conservation program is administered.	0	1	2	3

PERSONAL PROTECTIVE EQUIPMENT

Checklist for personal safety provisions includes personal protective equipment, machine guarding, and laboratory safety provisions.

When personnel provide their own personal protective equipment, it is the employer's responsibility to insure that the personal protective equipment meets federal standards.

Eye and Face Protection:

Protective eye and face equipment shall be required where there is a reasonable probability of injury that can be prevented by such equipment.

Head Protection:

Head protection equipment (helmets) shall be worn when there is a possible danger of head injuries from impact, flying of falling objects, or electrical shock and burns.

Helmets for protection against impact and penetration of falling objects shall meet the requirements of ANSI Z89.1.

Helmets for protection against electrical shock and burns shall meet the requirements of ANSI Z89.2.

Foot Protection:

Foot protection equipment shall be worn when there is a reasonable probability that injury can be prevented by such equipment.

Safety-toe footwear shall meet the requirements of ANSI Z41.1, "Standard for Men's Safety-Toe Footwear."

Machine Guarding:

Machine guarding shall be provided to protect employees in the machine area from hazards such as those created by point of operation, nip points, rotation parts, flying chips, and sparks. The guard shall be such that is does not offer an accident hazard in itself.

The point of operation guarding device shall be so designed as to prevent the operator from having any part of his body in the danger zone during the operating cycle.

Special supplemental hand tools for placing and removing material shall permit handling of material without the operator placing a hand in the danger zone.

Some of the machines which usually require point of operation guarding are: Guillotine cutters, shears, alligator shears, power presses, milling machines, power saws, jointers, portable power tools, and forming rolls.

Noise Exposure:

Protection against the effects of occupational noise exposure shall be provided when the sound levels exceed those shown in Table G-16 of the Safety and Health Standards. Feasible engineering and/or administrative control shall be utilized to keep exposure below the allowable limit.

When engineering or administrative controls fail to reduce the noise level to within levels of Table G-16 of the Safety and Health Standards, personal protective equipment shall be provided and used to reduce the noise to an acceptable level.

Exposure to impulsive or impact noise should not exceed 140 dB peak sound level.

In all cases, where the sound levels exceed an 8-hour time weighted average of 85 decibels measured on the A scale, a continuing, effective hearing conservation program shall be administered.

226.	Proper personal protective equipment including shields and are provided, used and maintained in a sanitary and reliable condition where a hazard from a process or environment may cause injury or illness to the employee.	0	1	2	3
227.	Where employees furnish their own personal protective equipment, the employer is responsible for assuring the equipment is maintained, in sanitary condition and meets standard requirements.	0	1	2	3

PORTABLE ABRASIVE WHEELS

228.	Abrasive wheels are used only on machines provided with safety guards (unless used for internal work).	0	1	2	3
229.	A safety guard covers the spindle end, nut, and flange projections.	0	1	2	3

230.	The safety guard is mounted to maintain proper alignment with the wheel.	0	1	2	3
231.	Safety guard fasteners exceed the strength of the guard material.	0	1	2	3
232.	Safety guards on right angle head or vertical portable grinders have a maximum exposure angle of 180 degrees.	0	1	2	3
233.	Safety guards on right angle head or vertical portable grinders are located to be between the operator and so they will direct broken wheel parts away from the operator.	0	1	2	3

PORTABLE POWERED TOOLS (PNEUMATIC)

234.	A tool retainer is installed to prevent ejection of tools such as screw drivers and wrenches.	0	1	2	3
235.	Hose and hose connections are designed for the pressures used with the pneumatic tools.	0	1	2	3

POWER TRANSMISSION EQUIPMENT GUARDING

236.	All belts, pulleys, sprockets and chains, flywheels, shafting and shaft projections, gears, couplings, or other rotating or reciprocating parts are effectively guarded if they are seven feet or less from the floor or a working platform.	0	1	2	3
237.	All guards for inclined belts are of approved design and are arranged to provide a minimum of 7 feet of clearance from the floor at any point outside the guard.	0	1	2	3
238.	All flywheels protruding through the floor are appropriately guarded.	0	1	2	3
239.	All runs of horizontal belts that are less than 7 feet from the floor or working surface have guards that extend at least 15 inches above the belt.	0	1	2	3
240.	All gears, requiring a guard, have the guard extending at least 6 inches above the mesh point by a bang guard that covers the complete face or they are completely enclosed.	0	1	2	3
241.	Couplings with bolts or set screws extending beyond the flange of the coupling are guarded by a safety sleeve.	0	1	2	3

Belts, pulleys, and shafting located in rooms used exclusively for power transmission DO NOT REQUIRE MACHINE GUARDING IN THE FOLLOWING CASES (NUMBERS 242-245):

242.	The basement, tower, or room is locked to prevent unauthorized entrance.	0	1	2	3
243.	The vertical clearance in passageways between the floor and power transmission beams, ceilings or any other objects is at least 5 feet 6 inches.	0	1	2	3
244.	The intensity of illumination meets requirements of ANSI A11.1.	0	1	2	3
245.	The route followed by the oiler is protected in such a manner as to prevent accidents.	0	1	2	3

PRESSURE VESSELS, PORTABLE UNFIRED

246.	Relief valves are set to the safe working pressure of the vessel or to the lowest safe working pressure, whichever is lowest.	0	1	2	3

RADIATION

247.	Proper controls are installed to prevent exposure of employees to unsafe levels of radiation (ionizing or electromagnetic).	0	1	2	3
248.	Each radiation area is conspicuously posted with appropriate NRC warning placards.	0	1	2	3
249.	Records are maintained on radiation exposure of all employees for whom personal monitoring is required.	0	1	2	3

RAILINGS

250.	All protective railings consist of a top rail, intermediate rail, and posts, and have a vertical height of 42 inches from upper surface of top rail to the floor or working surface.	0	1	2	3
251.	Railings used to protect against open-sided floors, platforms, and runways have a toeboard whenever people can pass underneath or there is moving machinery or equipment operating below.	0	1	2	3
252.	All railings are built to withstand a load of 200 pounds in any direction at any point on the top rail.	0	1	2	3
253.	All stair railings are similar in construction to a standard railing, but the vertical height does not exceed 34 inches and is not less than 30 inches from the upper surface of the top of the rail to the surface of the tread line with face of riser at the forward edge of the tread.	0	1	2	3

RESPIRATORY PROTECTION

254.	Suitable respirators, selected on the basis of the hazard to which the work is exposed, are provided.	0	1	2	3
255.	A respiratory protection program is established.	0	1	2	3
256.	A written procedure is established covering selection and use of respirators in dangerous atmospheres (the procedure covers normal and emergency operations).	0	1	2	3
257.	Both supervisors and workers are properly instructed in selection, use, and maintenance of respirators.	0	1	2	3
258.	Respirators are regularly cleaned and disinfected.	0	1	2	3
259.	Respirators are regularly inspected during cleaning and deteriorated parts are replaced.	0	1	2	3
260.	Respirators for emergency use are inspected at least once per month and after each use.	0	1	2	3
261.	Respirators are stored in a clean, convenient, and sanitary location.	0	1	2	3
262.	A program designed to survey work area conditions, degree of employee exposure, and/or stress is maintained to evaluate use of respirators.	0	1	2	3
263.	Persons are evaluated to determine if they can function properly when working while using respirators.	0	1	2	3

REVOLVING DRUMS

264.	Revolving drums or containers are guarded by an interlocking enclosure that will prevent the drum or container from revolving unless the guard enclosure is in place.	0	1	2	3

SAWS (BAND)

265.	All portions of band saws are guarded with the exception of the working portion of the blade between the bottom of the guide rolls and the table.	0	1	2	3
266.	All band saw wheels are fully encased with a solid outside periphery: the front and back of the case can be solid, wire mesh or perforated metal.	0	1	2	3

SAWS (PORTABLE CIRCULAR)

267.	All portable saws, with blades greater than 2 inches in diameter, are equipped with guards above and below the base plate or shoe.	0	1	2	3

SAWS (RADIAL)

268.	The sides of the lower portion of the blade are guarded by a device that automatically adjusts to the thickness of the material being cut and remains in contact with the surface of the material being cut.	0	1	2	3
269.	Radial saws have an upper guard which completely encloses the upper half of the blade.	0	1	2	3
270.	The sides of the lower exposed portion of the blade are guarded by a device that automatically adjusts to the top of the material being cut and will remain in contact with the surface of the material being cut.	0	1	2	3
271.	Radial saw operators are provided with proper eye protection.	0	1	2	3
272.	Radial saws used for ripping have nonkickback fingers or dogs.	0	1	2	3
273.	Adjustable stops are provided to prevent travel of the blade beyond the position necessary to complete the cut in repetitive operations.	0	1	2	3
274.	Radial arms are installed to allow the cutting head to return to the starting position when released by the operator.	0	1	2	3

SAWS (SWING OR SLIDING CUT-OFF)

275.	All swing or sliding cut-off saws are provided with a hood that completely encloses the upper half of the saw.	0	1	2	3
276.	Limit stops are provided for prevent all swing or sliding saws from extending beyond the front or back edges of the table.	0	1	2	3
277.	Each swing or sliding cut-off saw is provided with an effective device to return the saw automatically to the back of the table when released.	0	1	2	3
278.	Inverted swing or cut-off saws are provided with a hood that covers the top of the saw that protrudes above the top of the table or material being cut.	0	1	2	3

SAWS (TABLE)

279.	Circular table saws have a hood over the portion of the saw above the table: mounted so the hood will automatically adjust itself to the thickness of the material and remain in contact with the surface of the material being cut.	0	1	2	3

280.	Circular table saws have a spreader aligned with the blade and spaced no more than 1/2 inch behind the largest blade mounted in the saw. (This requirement does not apply for grooving, dadoing, or rabbiting operations.)	0	1	2	3
281.	Circular saws used for ripping have nonkickback fingers or dogs.	0	1	2	3
282.	Feed rolls and blades of self-feed circular saws are protected with a hood or guard to prevent the hands of the operator from coming in contact with the in-running rolls at any point.	0	1	2	3

SCAFFOLDS

283.	Scaffolds and their supports are capable of supporting the load being imposed and are designed with a safety factor of 4 times the load applied.	0	1	2	3
284.	Scaffold planking is Scaffold Grade: as recognized by the grading rules for the type of wood used.	0	1	2	3
285.	The maximum permissible spans for planking comply with the appropriate guidelines for the type of scaffolding material being used.	0	1	2	3
286.	Scaffolding planks extend over their end supports no more than 18 inches.	0	1	2	3
287.	Scaffold planking is overlapped a minimum of 12 inches at the ends or is secured from movement.	0	1	2	3
288.	Railings and toeboards are installed on all open sides and ends of platforms more than 10 feet above the ground or working area.	0	1	2	3
289.	A screen is installed between the toeboard and guardrail where persons are required to work or pass below the scaffold.	0	1	2	3

SPRAY FINISHING OPERATION

290.	Spray booths have an average air velocity over the open face of the booth of at least 100 linear feet per minute.	0	1	2	3
291.	Electrostatic spraying operations are conducted with an air velocity of not less than 60 linear feet per minute: The rate can vary depending upon the volume of product being applied, its flammability and explosion characteristics.	0	1	2	3
292.	Visible gauges or audible alarms or pressure-activated devices are installed to insure that required air velocity is maintained.	0	1	2	3

293.	Filter pads are inspected after each period of use.	0	1	2	3
294.	Clogged filter pads are replaced at proper intervals.	0	1	2	3
295.	Filter rolls are inspected at proper intervals and filter media is replaced as needed.	0	1	2	3
296.	Spray booths are installed to have all portions readily accessible for cleaning.	0	1	2	3
297.	Spray booths are installed with at least 3 feet of clear space on all sides which is kept free of storage or combustible construction.	0	1	2	3
298.	Spaces within the spray booth on the downstream and upstream sides of filters are protected with approved automatic sprinklers.	0	1	2	3
299.	There is no open flame or spark producing equipment in any spraying area or within 20 feet of a spraying area unless separated by an approved partition.	0	1	2	3
300.	Electrical wiring and equipment, located within the spraying area, are of the approved explosion proof type.	0	1	2	3
301.	The quantity of flammable or combustible liquids kept in the vicinity of the spraying area does not exceed a 1-day or a 1-shift supply.	0	1	2	3
302.	Bulk storage of flammable or combustible liquids is kept in a separate building which is detached from main buildings or separated in an approved manner.	0	1	2	3
303.	Transfer of flammable or combustible liquids from one container to another is conducted with a system that will effectively bond and ground them to prevent discharge of sparks or static electricity.	0	1	2	3
304.	All spraying areas are kept free from the accumulation of deposits of combustible residues as is practical.	0	1	2	3
305.	Scrappers, spuds or other cleaning tools are on the nonsparking type.	0	1	2	3
306.	Residue, scrappings, and debris contaminated with residue are immediately removed from the premises.	0	1	2	3
307.	"NO SMOKING" signs in large letters on a contrasting color background are conspicuously posted in all spraying areas.	0	1	2	3
308.	"NO SMOKING" signs in large letters on a contrasting color background are conspicuously posted in all paint storage rooms.	0	1	2	3

STAIRS (FIXED INDUSTRIAL)

309.	All flights of stairs with 4 or more risers have a standard railing on all open sides.	0	1	2	3
310.	Handrails are provided on at least one side of all closed stairways.	0	1	2	3
311.	All stairs are constructed so that riser height and tread width are uniform throughout.	0	1	2	3
312.	All fixed stairways have a minimum width of 22 inches: (but in all cases also conform to life safety code requirements).	0	1	2	3
313.	Fixed stairs are provided, from one level to another, wherever operations require regular travel between levels.	0	1	2	3
314.	Fixed stairs are provided to operating platforms where regular routine attention is required during operations.	0	1	2	3
315.	Fixed stairs are provided to areas where access to elevations is required on a daily or shift basis and where such work may expose employees to harmful substances.	0	1	2	3
316.	Fixed stairs are provided for the purpose where carrying of tools or equipment by hand is normally required on a regular basis.	0	1	2	3
317.	Spiral stairways are not allowed unless it is not practical to provide the normal fixed stairway unit.	0	1	2	3

STATIONARY ELECTRICAL DEVICES

318.	Non-current carrying metal parts of fixed equipment (if required to be grounded) are grounded by an equipment grounding conductor, which is contained within the same raceway, cable, or cord, or runs with or encloses the circuit conductors.	0	1	2	3
319.	If the equipment is operated with DC circuits only, the equipment grounding conductor may be run separately from the circuit conductors.	0	1	2	3
320.	Electrical equipment is considered effectively grounded if it is secured to, and is in electrical contact with, a metal rack or structure provided for its support and the metal rack or structure is grounded by the method specified for the non-current-carrying metal parts of fixed equipment.	0	1	2	3

STORAGE

321.	All stored material, stacked in tiers, is stacked, blocked, interlocked and limited in height so that it is secure against sliding or collapse.	0	1	2	3
322.	Storage areas are kept clean from accumulation of materials that constitute hazards from tripping, fire, explosion, or pest harborage.	0	1	2	3
323.	Vegetation control is exercised when necessary in storage areas.	0	1	2	3
324.	Sufficient room is provided to allow free movement of mechanical handling equipment in aisles, at loading docks, through doorways and whenever turns or passage must be made.	0	1	2	3

TANKS (OPEN SURFACE)

325.	Where ventilation is used to control potential exposure to employees, it is adequate to reduce the concentration to the degree that a hazard to the employees does not exist.	0	1	2	3
326.	Whenever there is danger of splashing, employees are required to wear appropriate face, hand, or body protection.	0	1	2	3
327.	Whenever tanks contain liquid which may be harmful to the skin, there is an approved shower, dip tank station or hose and spray station provided.	0	1	2	3
328.	All employees working around open-surface tanks are provided with proper instruction concerning the hazards of the respective jobs and the personal protection applicable to the hazards.	0	1	2	3
329.	All employees working around open-surface tanks are provided with proper instruction concerning the first aid procedures applicable for exposure to the hazard.	0	1	2	3

TOEBOARDS

330.	Railing, protecting floor openings, platforms, scaffolds, etc. are provided with approved toeboards: (Whenever people can pass beneath the open side, there is moving machinery, or there is equipment that could be damaged or made hazardous by falling objects.)	0	1	2	3
331.	Standard toeboards are at least 4 inches in height and are either solid or made of open material with openings that are 1 inch or less in the greatest dimension.	0	1	2	3

TOILETS

332.	Adequate toilet facilities are provided. 220	0	1	2	3

333.	At least 1 for 1-15 persons are provided.	0	1	2	3
334.	At least 2 for 16-35 persons are provided.	0	1	2	3
335.	At least 3 for 36-55 persons are provided.	0	1	2	3
336.	At least 4 for 56-80 persons are provided.	0	1	2	3
337.	At least 5 for 81-110 persons are provided.	0	1	2	3
338.	At least 6 for 111-150 persons are provided.	0	1	2	3
339.	When over 150 persons are employed, add one for each additional 40 persons.	0	1	2	3
340.	Where the toilet room will be occupied by no more than one person at a time; it can be locked from the inside, and contains at least one water closet, separate toilet facilities for each sex do not need to be provided.	0	1	2	3
341.	When employees are working in unattended areas or tend to move around to various locations, either portable facilities are provided or transportation is available to nearby toilet facilities.	0	1	2	3

TRASH

342.	Sweepings, solid or liquid waste and garbage are removed as frequently as necessary to avoid creating a menace to health and to maintain good sanitary conditions.	0	1	2	3

WASHING FACILITIES

343.	Adequate washing facilities are provided for all employees working at fixed locations.	0	1	2	3
344.	Sanitary facilities for mobile crews, working in areas where sanitary facilities are readily available, are not required.	0	1	2	3
345.	Suitable cleansing agents, individual hand towels or sections thereof, of cloth or paper, warm air blowers or clean individual sections of continuous roll cloth toweling are provided at washing facilities.	0	1	2	3

WELDING — GENERAL (SEE ALSO WELDING IN CONFINED SPACES)

346.	Welding equipment is chosen for safe application to the work.	0	1	2	3
347.	Welding equipment is installed properly.	0	1	2	3
348.	Mechanical ventilation is provided for welding and cutting operations where there is less than 10,000 cubic feet of volume per welder.	0	1	2	3

349.	Mechanical ventilation is provided for welding and cutting operations where the overhead height is less than 16 feet.	0	1	2	3
350.	Proper shielding and eye protection is provided for welders.	0	1	2	3
351.	The welders are enclosed in a booth or noncombustible screening with a finish of low reflectivity with respect to visible or ultra-violet radiation.	0	1	2	3
352.	Proper precautions are taken to prevent fire due to welding or cutting operations.	0	1	2	3
353.	Work and electrode lead cables are frequently inspected and cables with damaged insulation or exposed bare conductors are replaced.	0	1	2	3
354.	Welding operations requiring fluxes, coverings, coatings, alloys, etc. involving flourine compounds, zinc, lead, beryllium, cadmium or mercury comply with the special considerations in 29 CFR 1910.252(f) (5) through (10).	0	1	2	3

WELDING IN CONFINED SPACES

355.	All welding and cutting operations in confined spaces are adequately ventilated to prevent oxygen deficiency.	0	1	2	3
356.	In areas where it is impossible to provide adequate ventilation, approved respirator protection is required.	0	1	2	3
357.	In areas where the atmosphere is immediately hazardous to life, approved respirator protection is required.	0	1	2	3
358.	When employees are working in confined spaces where hose masks, hose masks with blowers, or self-contained breathing apparatus are required, a worker is stationed outside to insure the safety of those working within.	0	1	2	3
359.	Oxygen is not allowed to be used for ventilation purposes.	0	1	2	3

WOODWORKING MACHINERY

360.	All woodworking machinery is effectively guarded to protect workers from hazards inherent to their operations.	0	1	2	3
361.	A power control device is provided for each machine to allow the operator to shut off power without leaving the operator's point of operation.	0	1	2	3

362.	Power controls are located within easy reach of the operators while at their regular work station: It should not be necessary to reach over a cutter to make adjustments other than normal setup operations.	0	1	2	3
363.	Each operating treadle is protected against unexpected or accidental tripping.	0	1	2	3
364.	In applications where injury to the operator might result from automatic motor restarts after a power failure, provisions are made to prevent machines from automatic restarts upon restoration of power.	0	1	2	3

RECORDKEEPING REQUIREMENTS

365.	See the record requirement guidelines for Form 200 to secure full information on filling out the form and maintaining records.	0	1	2	3
366.	It must be reported if it involves a recordable death, injury or illness of an employee.	0	1	2	3
367.	Recordable injuries are those which require medical treatment (other than first aid), or involve loss of consciousness, restriction of work or motion, or transfer to another job.	0	1	2	3
368.	Injuries are defined as any injury such as a cut, fracture, sprain, amputation etc., which results from a work accident or an exposure involving a single incident in the work environment.	0	1	2	3
369.	Illnesses are defined as any abnormal condition or disorder, other than one resulting from an occupational injury, caused by exposure to environmental factors associated with employment.	0	1	2	3
370.	Lost workdays are defined as any days lost after the 1st day of an injury or illness.	0	1	2	3
371.	Lost workdays are computed to include days the employee could not work, had to work at another job on a temporary basis, worked at a permanent job less than full time or worked at a permanently assigned job but could not perform all duties normally connected with it.	0	1	2	3
372.	Recordable injuries do not include injuries in the parking lot on the way to or from work. (off-the-clock)	0	1	2	3
373.	Recordable injuries do not include injuries at work while off-the-clock.	0	1	2	3
374.	Each recordable injury or illness is listed on the Log and Summary of Occupational Illnesses and Injuries.	0	1	2	3

375. Medical treatment is defined as treatment in addition to first aid, (one time treatment or administering of medication and subsequent observation of minor scratches, burns, splinters and so forth which do not normally require medical care) even though provided by a physician or registered professional personnel does not qualify. 0 1 2 3

APPENDIX VI

HAZARD COMMUNICATION CHECKLIST

Use this checklist to determine the extent of your compliance with the *Oklahoma Hazard Communication Standard.*

HAZARD COMMUNICATION PROGRAM	Yes	No	N.A.	Action Taken
1. Is there a program?	_____	_____	_____	_____
Our Program				
2. Describes how hazards will be evaluated and described (employers may rely on the chemical manufacturer or importer).	_____	_____	_____	_____
3. Tests all hazardous materials in the workplace (employers may rely on the chemical manufacturer or importer).	_____	_____	_____	_____
4. Describes our labeling system.	_____	_____	_____	_____
5. Provides a list of hazardous chemicals referenced on MSDS for all hazardous materials used in the workplace (see subrule B).	_____	_____	_____	_____
6. Describes our employee education and training program.	_____	_____	_____	_____
7. Describes hazards of non-routine tasks.	_____	_____	_____	_____
8. Describes how hazards of non-labeled pipes will be handled.	_____	_____	_____	_____
9. Includes procedures for informing of on-site contractors of the hazardous substances in the workplace to which their employees may be exposed.	_____	_____	_____	_____
10. Is available to employees, their designated representatives, and the Commissioner of Labor.	_____	_____	_____	_____

HAZARDOUS MATERIALS IN THE WORKPLACE	Yes	No	N.A.	Action Taken
Our list contains all hazardous chemicals including, but not limited to:				
1. Raw materials	____	____	____	____
2. Both isolated and nonisolated intermediates	____	____	____	____
3. Final product	____	____	____	____
4. Cleaning and maintenance chemicals	____	____	____	____
5. Laboratory chemicals for which MSDS information has been received.	____	____	____	____
6. Waste products not regulated under RCRA, but which are hazardous under this Standard	____	____	____	____
7. Impurities and by-products	____	____	____	____
8. Waste treatment and products	____	____	____	____
HAZARDOUS MATERIALS LABELING SYSTEM				
1. All products containing hazardous materials leaving the workplace are labeled (applicable to chemical manufacturers, distributors, and importers only).	____	____	____	____
2. Stationary containers are labeled.	____	____	____	____
3. Temporary containers used between workshifts or by different workers are labeled.	____	____	____	____
4. A method has been established to insure that our labels are correct and up-to-date.	____	____	____	____

CONTENTS OF HAZARDOUS MATERIAL LABEL	Yes	No	N.A.	Action Taken
Our labels contain:				
1. A chemical name that coincides with name on MSDS.	____	____	____	____
2. The identity of hazards with words, pictures, symbols.	____	____	____	____
3. Information that does not conflict with DOT Regulations.	____	____	____	____
4. Other OHS standards if materials is already regulated.	____	____	____	____
IN-PLANT LABELING SYSTEM				
1. Containers are labeled with the identity of hazardous chemicals and hazard warnings (unless hazard warning materials are used.)	____	____	____	____
2. Hazard warning materials for hazardous chemicals in stationary process containers are readily accessible to the employee in the workplace.	____	____	____	____
3. The labels on incoming containers have not been removed or defaced unless immediately replaced with our own labels.	____	____	____	____
4. The hazards in pipelines are identified.	____	____	____	____
5. Our labels are legible and in English.	____	____	____	____

MATERIAL SAFETY DATA SHEETS	Yes	No	N.A.	Action Taken
1. A MSDS is available for every hazardous chemical which an employer uses.	____	____	____	____
2. Our MSDS are readily accessible to exposed employees.	____	____	____	____
PROCEDURES HAVE BEEN ESTABLISHED FOR				
1. Updating our MSDS (or for receiving updated copies from our supplier).	____	____	____	____
2. Taking appropriate action if a shipment is without a MSDS.	____	____	____	____
3. Getting new and updated MSDS to employees handling materials.	____	____	____	____
4. Advising employees of any changes in MSDS.	____	____	____	____
5. Documenting efforts to obtain MSDS from supplier (recommended practice but not required by this Standard).	____	____	____	____
HAZARDS OF NON-ROUTINE TASKS				
1. All non-routine tasks involving the use of hazardous materials are identified.	____	____	____	____
2. The hazards involved in the performance of non-routine tasks are described in writing.	____	____	____	____
3. A MSDS is prepared or obtained for the hazardous materials involved in these non-routine tasks.	____	____	____	____
4. A labeling system or written operating procedure has been established to identify the hazardous substances and their hazards involved in non-routine tasks.	____	____	____	____

	Yes	No	N.A.	Action Taken
5. Special training has been established for performing non-routine tasks, including written operating procedure.	____	____	____	____
EMPLOYEE EDUCATION AND TRAINING				
Procedures have been established to cover				
1. All manufacturing, quality control, plant service, and R & D employees who may be exposed to hazardous materials.	____	____	____	____
2. Requirements of the Hazard Communication Standard.	____	____	____	____
3. Operations where hazardous materials are present.	____	____	____	____
4. Location and availability of written hazard communication program including the hazardous chemical list and material safety data sheets.	____	____	____	____
PROCEDURES FOR TRAINING EMPLOYEES				
1. Information about physical and health hazards of chemicals in work areas.	____	____	____	____
2. Detecting the presence of hazardous materials - monitoring procedures, odors, visibility, etc.	____	____	____	____
3. Proper use and selection of personal protective equipment.	____	____	____	____
4. Emergency procedures in the event of accidental exposure to hazardous materials, including emergency phone numbers and the location of eye washes and safety showers.	____	____	____	____
5. How to determine hazards by reading a label.	____	____	____	____

	Yes	No	N.A.	Action Taken
6. The location of MSDS and the procedure for reviewing them and/or obtaining a copy.	____	____	____	____
7. How to obtain the correct MSDS for the hazardous substance used by the employee, such as the use of the trade name as a key identifier.	____	____	____	____
8. How the MSDS is updated or the procedure for obtaining updated copies from the chemical manufacturer, importer or distributor.	____	____	____	____
9. The significance to the employee of each section of information on the MSDS, how to read it, and what it means.	____	____	____	____
10. The measures employees can take to protect themselves from chemical exposure. (Examples include eye washes, face shields, respirators, etc.)	____	____	____	____
11. Training which is done prior to the handling of the hazardous chemical exposure. (Examples include eye washes, face shields, respirators, etc.)	____	____	____	____
12. Updated training is considered when the employee has transferred jobs or departments.	____	____	____	____
13. Updated training is considered when significant changes in chemicals or operations have occurred.	____	____	____	____

FIRE SAFETY

	Yes	No	N.A.	Action Taken
1. A list of work areas where hazardous substances are generated.	____	____	____	____
2. A list of work areas where hazardous substances are used.	____	____	____	____
3. A list of work areas where hazardous substances are stored.	____	____	____	____
4. A list of work areas where hazardous substances are transported from.	____	____	____	____
5. A list of hazardous substances containing the chemical and common name of each substance for each work area.	____	____	____	____
6. (IF A RESEARCH LABORATORY) - Communication is established and an information exchange program is established to help the fire department to prepare to respond to emergencies a the research laboratory.	____	____	____	____
7. Signs are posted if the building, structure, or location contains significant amounts of hazardous substances.	____	____	____	____
8. Placards are of the NFPA 704 system design.	____	____	____	____
9. Numbers and symbols within the four spaces on the NFPA 704 signs are at least three inches in height.	____	____	____	____
10. Placards are at least 7 1/2 inches on each side.	____	____	____	____
11. If building or structure is less than 5,000 square feet in area, placarding is required on outside only.	____	____	____	____

	Yes	No	N.A.	Action Taken
12. If building is 5,000 square feet or more in area, placarding is required on outside and at the place or places where each type of hazardous substance is located within.	____	____	____	____
13. Placards identify three principle categories: health (blue); flammability (red); reactivity (yellow); with a fourth spot at the bottom (white or clear), used to indicate unusual reactivity.	____	____	____	____
14. Placards indicate severity in each of three categories, numerically with divisions ranging from 4, indicating a severe hazard, to 0, indicating no special hazard.	____	____	____	____
15. In cases where number of signs exceeds 5, and where posting of a sign for each hazardous material would be redundant, ambiguous or where space is limited by physical characteristics of the structure, a written agreement between fire chief and proprietor has been developed.	____	____	____	____
16. In cases where the number of signs is in question and a written agreement exists between fire chief and proprietor, the agreement has been approved by the Commissioner of Labor.	____	____	____	____
17. In cases where the number of signs is in question and an approved written agreement exists between fire department and proprietor, a sign is posted stating, "SIGNS NOT POSTED FOR ALL HAZARDOUS CHEMICALS."	____	____	____	____

SIGNIFICANT AMOUNTS	Yes	No	N.A.	Action Taken
18. If the test for significant amounts of hazardous materials has been met, placards are posted in appropriate locations.	____	____	____	____
19. Significant amounts include any amount of a class A explosive.	____	____	____	____
20. Significant amounts include any amount of a class B explosive.	____	____	____	____
21. Significant amounts include any amount of a class A poison.	____	____	____	____
22. Significant amounts include any amount of a class B poison.	____	____	____	____
23. Significant amounts include any amount of a flammable solid with a "dangerous when wet" warning.	____	____	____	____
24. Significant amounts include any amount of a radioactive material that requires a special Nuclear Regulatory Commission license.	____	____	____	____
25. Significant amounts include the aggregate amount of hazardous chemical stored, placed, or used at the workplace greater than or equal to 55 gallons of liquid or 500 pounds of non-liquid.	____	____	____	____
26. Significant amounts of hazardous substances with numerical NFPA 704 system ratings of 2 or more for health, or 2 or more for flammability, or 1 or more for reactivity are counted in totaling the weight or gallonage.	____	____	____	____

	Yes	No	N.A.	Action Taken
27. Significant amounts of hazardous substances are totaled to include any combination of liquid and non-liquid and aggregate amount is determined by poundage.	____	____	____	____
28. We have met with the fire department and have discussed the types and amounts of hazardous substances, and any unusual hazards which may be encountered by emergency response personnel.	____	____	____	____
FIRE DEPARTMENTS				
29. A fire chief of the responsible jurisdiction is maintaining the information in a central location.	____	____	____	____
30. Information collected under Subsection IV.A.1 is provided to fire suppression companies with primary responsibility for fire suppression at the workplaces within their jurisdiction.	____	____	____	____
31. Information collected under Subsection IV.A.1 is provided to fire prevention and inspection divisions with primary responsibility at the workplaces within their jurisdiction.	____	____	____	____
32. Information is provided upon request to any fire department employee or representative of fire department employees according to provisions in Section III.E.	____	____	____	____
33. Information gathered under provisions of this section is treated as confidential and is not made available to the public.	____	____	____	____

APPENDIX VII

LOG AND SUMMARY OF OCCUPATIONAL INJURIES AND ILLNESSES (OK NO. 200)

Description

The log classifies recordable occupational injuries and illnesses, and states the outcome of each case. The summary totals are used at year-end on the OK No. 200-S Survey Form.

Required Form

OK No. 200 Log and Summary.

A substitute such as a computer printout, etc. should contain the same information/column numbers as the OK No. 200 Log and Summary.

Maintenance of Log

You must report fatalities within 48 hours with the Oklahoma Department of Labor.

You should enter each recordable case on the log within 6 working days after learning of its occurrence.

Location of Records

Keep injury and illness records (OK No. 200 Log and Summary and supplementary records, such as personnel or workers' compensation records) for every physical location where operations are performed. Under the regulations, the location of these records depends upon whether or not the employees are associated with fixed place(s) of employment.

Keep records for employees working at fixed locations (factories, stores, restaurants, warehouses) at the work location.

Keep records for employees who report to a fixed location but work elsewhere (agriculture, construction, transportation, etc.) at the place where employees report every day (field office, trailer, etc.).

Maintain records for employees whose payroll or personnel records are maintained at a fixed location, but who do not report or work at a single place of employment (traveling salespeople, technicians, engineers, etc.) at the base from which they are paid or the base of their firm's personnel operations.

Employees not associated with fixed places of employment:

a. Keep records at the field office or mobile base of operations.

b. Keep records at an established central location if:

   1. The address and telephone number of the place where records are kept are at the worksite, and

   2. There is someone available at the central location during normal business hours to provide information from the records.

Location Exception

Although the supplementary record and the annual summary must be located as outlined in the previous section, it is possible to prepare and maintain the log at an alternative location if these two requirements are met:

a. Sufficient information must be available at the alternate location to complete the log in 6 workdays, and

b. A copy of the log updated to within 45 calendar days is present in the establishment at all times.

Instructions for Filling Out the Log and Summary

Establishment Identification

Current Year
Place of employment name
Establishment name (if different)
Establishment address

Types of Entries

Three types of cases recorded

1. Fatalities
2. Nonfatalities with lost and/or restricted workdays
3. Nonfatalities without lost workdays

Two categories

1. Injuries (Columns 1-6)
2. Illnesses (Columns 7-13)

Case Identification

Column A: Case or file number (non-duplicating number to identify each case for your information). For example, if you are using workers' compensation files for verification, you could use the workers' compensation case number.

Column B: Month/day of injury or date of initial diagnosis of illness.

Column C: Employee's name.

Column D: Employee's regular job title.

Column E: Department/description of workplace in which employee is regularly assigned.

Column F: Brief description/nature of injury or illness. Use key words, for example, "cut index finger - stitches", "burn left leg - 2nd degree," "back strain - chiropractor".

Extent of and Outcome of Injury

Column 1: Month/day/year of occupational injury-related death.

☑ **NOTE:** If injury doesn't result in death until days, weeks, or months later, lost time is deleted and only date of death is shown.

Column 2: Check if case involves days away from work and/or days of restricted work activity.

Column 3: Check if case involves days away from work.

☑ **NOTE:** If you check Column 3, you must also check Column 2.

Column 4: Enter number of scheduled workdays away from work. DO NOT include day of injury or holidays, weekends, days away due to seasonal employment, etc.

Column 5: Enter number of scheduled workdays of restricted activity.

☑ **NOTE:** If you check Column 5, you must also check Column 2.

Column 6: Check if injury involved no lost workdays or restricted activity, but required medical treatment (NOT FIRST AID).

Type, Extent of and Outcome of Illness

Columns 7a-7g: Check applicable types of occupational illness.

Examples:

1. Welding flash/heat or sunstroke - check Column 7e - disorders due to physical agents.

2. Condition caused from repetitious work or repeated motion (carpal tunnel syndrome) - check Column 7f - disorders due to repeated trauma.

☑ **NOTE:** See reverse side of Log and Summary for several other examples.

Column 8: Month/day of occupational illness-related death.

Column 9: Check if illness involves days away from work and/or restricted work activity.

Column 10: Check if illness involves days away from work.

☑ **NOTE:** If you check Column 10, you must also check Column 9.

Column 11: Enter the number of scheduled workdays away from work. Don't include day of initial diagnosis, holidays, weekends, days away due to seasonal employment, etc.

☑ **NOTE:** When counting lost workdays, count only those days the employee was scheduled to work or those days the employee would have been scheduled to work had the employee been able to work.

Column 12: Enter the number of scheduled workdays of restricted activity.

☑ **NOTE:** If you check Column 12, you must also check Column 9.

Column 13: Check if illness didn't result in lost or restricted workdays.

☑ **NOTE:** Columns 8, 9, and 13 should equal the number of checks in Columns 7a-7g.

SUMMARY

Injuries

- Injury-related death - Entry in Column 1 only.
- Injury with lost workdays - Entries in Columns 2, 3, and 4.
- Injury with lost workdays AND restricted activity - Entries in Columns 2, 3, 4 and 5.
- Injury with restricted workdays - Entries in Columns 2 and 5.
- Injury without lost workdays (medical treatment, NOT FIRST AID) - Entry in Column 6.

Illnesses

- Illness-related death - Entries in Columns 7 and 8.
- Illness with lost workdays - Entries in Columns 7, 9, 10, and 11.
- Illness with lost workdays AND restricted activity - Entries in Columns 7, 9, 10, 11, and 12.
- Illness with restricted workdays only - Entries in Columns 7, 9, and 12.
- Illnesses without lost workdays - Entries in Columns 7 and 13.

Changes to Entries

- Line out and correct Original Column entries.
- Line out those entries determined not work-related.
- Line out first-aid treatment entered in error (see example 4 below).

Examples of Changes

1. Injured employee first required only medical treatment, but later lost workdays. Check in Column 6 should be lined out and checks in Columns 2 and 3 and the number of lost workdays in Column 4 should be entered.
2. An employee with an occupational illness who lost workdays, returned to work, and then died of the illness. Entries in Columns 9 through 12 would be lined out and the date of death in Column 8 would be entered.
3. An injury was first thought to be work-related. It was determined the injury was not work-related. Line out this entry.
4. First-aid cases can be entered for employer's information. Enter "FA" in Column 6. At year-end "FA" entries would not be included in your totals.

Year-End Review

- Review injury and illness dates to prevent carryovers from previous year.
- Cases involving lost workdays extending into next calendar year:

  Count future lost workdays. If unknown, estimate days lost; do not record as case on next year's Log.

- Total each column and enter the totals at the bottom of the last page of OK No. 200.

First Aid Cases Not Included in Totals

- No injuries or illnesses: enter zeroes in column totals.
- Final review for current and complete information.
- Signature and date by employer or employer's designee.

MEDICAL TREATMENT AND FIRST AID GUIDELINES

FOR COLUMN 6 ONLY
(Injuries without lost workdays)

CUTS, LACERATIONS, PUNCTURES, ABRASIONS, SPLINTERS

Medical Treatment (recordable)

- Sutures (stitches)
- Butterfly sutures
- Treating infection
- Applying antiseptic on second or subsequent visit to a doctor or a nurse
- Removing foreign bodies requiring skilled services of physician due to depth of embedment, size or shape of object(s), or location of wound
- Cutting away dead skin (surgical debridement)

First Aid (non-recordable)

- Bandaging on any visit to a doctor or nurse
- Applying antiseptic on first visit to a doctor or a nurse
- Applying ointments on first or subsequent visits to prevent drying or cracking of skin
- Removing foreign bodies from wound by tweezers or other simple techniques
- Removing foreign bodies in the eye, not embedded, by irrigation

FRACTURES

Medical Treatment (recordable)

- Where X-ray results are positive. Applying a cast or other professional means of immobilizing injured part.

First Aid (non-recordable)

- Where X-ray taken as a precaution is negative for fracture.

STRAINS, SPRAINS, DISLOCATIONS

Medical Treatment (recordable)

- Applying a cast or other professional means of immobilizing injured part
- Using hot or cold compresses for treatment of strain, sprains, and dislocations on second or subsequent visits to a doctor or nurse
- Using diathermy and whirlpool treatments
- Chiropractic manipulation

First Aid (non-recordable)

- Using an elastic (Ace) bandage on a strain that is not otherwise recordable, of first visit to a doctor or a nurse
- Using hot or cold compresses for treatment of a strain on first visit to a doctor or nurse

THERMAL OR CHEMICAL BURNS

Medical Treatment (recordable)

- Treating all second and third degree burns

First Aid (non-recordable)

- Treatment by a doctor or nurse for a first degree burn

BRUISES, CONTUSIONS

Medical Treatment (recordable)

- Treating a bruise by draining collected blood
- Soaking or applying cold compresses to a bruise on second or subsequent visits to a doctor or nurse

First Aid (non-recordable)

- Soaking or applying cold compresses to a bruise, that is otherwise not recordable, on first visit to a doctor or nurse

Miscellaneous Procedures

Medical treatment is only one criterion for determining recordability. Any injury which required only first aid treatment but involved loss of consciousness, restriction of work or motion, or transfer to another job is recordable.

Tetanus shots, either initial shots or boosters, are considered preventive in nature and are not considered medical treatment.

An X-ray which is negative for fracture is not considered medical treatment.

Hospitalization for observation, where no treatment is rendered other than first aid, is not considered medical treatment. However, most injuries requiring hospitalization will result in lost workdays and will be recordable for that reason.

The observation of injury by a doctor or nurse on second or subsequent visits is not recordable.

Use of prescription medicines constitutes medical treatment. Recommending or use of nonprescription medicines is considered first aid.

All diagnosed occupational illnesses are recordable.

All occupational fatalities are recordable.

A heart attack, if allowed as an industrial claim, is recorded as an illness (Column 7g of the Log).

Replacement of broken eye glasses in itself is not a recordable case.